HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

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HOSPITAL ABSTRACTS

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HOSPITALS IN GREAT BRITAIN

623. LEE DONALDSON ASSOCIATES. **U.K. private medical care: provident schemes statistics 1977; report for the Department of Health and Social Security.** London, Lee Donaldson Associates, 1978, 21pp.

This survey was commissioned by the Department of Health and Social Security to provide some measure of the scope, size and trends in the private medical care sector. The results are presented in nine tables. Table I shows the annual income and benefits paid by 11 Provident Associations for the five years to 1977. The remaining tables relate to the three largest schemes only and cover: the long term trend in numbers of subscribers; the insured population; subscription income and benefits paid; new enrolments and lapses; individual and group subscribers, and income from each sector; and subscription income by method of finance. Also given are: an analysis of the payments made by private patients; and the benefits paid by the Provident Associations by item of service for private medical care.

HOSPITALS IN OTHER COUNTRIES

See also Abstract Nos. 634-636, 639, 690, 757

624. RANHEIM, B. Somatiske sykehus i Oppland fylke. [**A discussion on the general hospital services in Oppland County, Norway.**] *Sykehuset*, Oslo, 1978, vol. 41, no. 8, pp. 479-496.

Oppland County has a population of approximately 185,000. It is served by the new Lillehammer County Hospital, with 484 beds (serving 88,000 people) and Gjövik County Hospital, with 287 beds (serving 71,000). The remainder of the patients go to Oslo hospitals for treatment. The majority of beds fulfill local hospital functions (medicine, surgery, gynaecology, maternity and paediatrics), but both hospitals have wards serving central hospital functions. The future requirements for health services in the county (as in Norway as a whole) need analyzing on the basis of expectations of future developments. Resources are limited and since they are unlikely to expand demand far exceeds the available resources. Political decisions are required to alter trends in demand by: taxes on tobacco, sugar and sweets; propaganda for reduced sugar and fat consumption; improved traffic safety measures; improved housing and social conditions, etc. Demand can also be limited by increasing the cost of the health service to the consumer. Doctors must be able to see a clear interest in limiting the expenses of the various specialties and in contributing towards apportioning the limited resources. Hospitals could be utilized far more effectively and economically if they introduced shift working and worked a seven day week. Councils should be set up for evaluating hospital running and methods of treatment.

PLANNING, DESIGN AND CONSTRUCTION

See also Abstract No. 751

625. REA, J., FROMMELT, J. J. and MACCOUN, M. D. **Building a hospital: a primer for administrators.** Chicago, American Hospital Association, 1978, vii, 80pp. $15.00

This book is the successor to the Manual of Hospital Planning Procedures, published by the American Hospital Association (1958: revised 1966) and presents in a linear form the physical planning procedures required for hospitals in order to ensure the provision of good facilities for hospital care. The nine chapters describe the planning process from the establishment of the planning team to the final stage of moving, and consider such aspects as: assessment of community needs; institutional mission; functional programming; budgeting; developing the architectural scheme; organizing construction; and determining equipment needs. A list of selected references is included (pp. 75-80).

626. BROWN, G. D. **HSAs and hospitals: counter-planning strategies.** *Hospital and Health Services Administration*, Chicago, 1978, vol. 23, no. 4, pp. 65-74.

The respective roles of facts and values in decision making are outlined. One of the most serious and frequent errors made by health planning agencies in the United States is the introduction of planning techniques justified (if at all) on the basis of technically-derived solutions when in fact the variables considered involve questions of value. These technical solutions are frequently not implemented at all or are made partially or totally ineffective by the system, due to the initiation of counter-planning strategies by other centres of power, such as the hospitals themselves. Aspects of decentralized and regional planning are discussed. The planning approach recommended calls for the increased capacity of hospitals and other provider institutions to plan for their services, in interaction with other agencies.

HOSPITAL DESIGN

See Abstract Nos. 625, 639

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

627. Kantonsspital Basel/Universitätskliniken. **[Basel Cantonal and University Hospital.]** *Veska*, Zurich, 1978, Sept., vol. 42, no. 9, pp. 447-454.

This is the first of a series of papers on new buildings for the Basel Cantonal Hospital (a teaching hospital). It gives a general account of the whole project, together with a detailed description of the ward block of 'Clinic 2'. The three main complexes are: 'Clinic 1', ward block and treatment block for the department of surgery and some other departments; 'Clinic 2' ward block and treatment block for the medical and some other departments, the out-patient department, and certain services; and the complex of the supply and services department, training and research departments, canteen and cafeteria, etc. 'Clinic 1' was completed soon after the second world war; the other complexes are under construction, some blocks already being in use and completion is planned for 1980. The nine-storey ward block of 'Clinic 2' has five ward floors, each

with two 48-bedded wards divided into three nursing groups of 16 beds. Wards are on a double corridor plan with patients' rooms (mostly two-bedded but with a four-bedded room on each corner) round the whole periphery of the rectangular block. There is a toilet and a shower for each pair of rooms; each nursing group of 16 patients has a nurses' room, doctors' room and sluice. The two-bedded rooms are not as popular, especially among the elderly patients, as was expected, since they miss the activity and the opportunity for chatting which six-bedded rooms would give. The paper is illustrated with a site plan, a plan of a ward floor, an elevation, a table showing construction details, and 11 photographs.

628. Bouwtijd slechts twee en half jaar: St. Jozef Ziekenhuis te Heemskerk officieel geopend: totale vormgeving biedt mogelijkheid van uitbreiding. **[Official opening of the St. Joseph Hospital, Heemskerk: the design of the building, completed in only 2½ years, allows for its expansion.]** *Technische Gids*, Amsterdam, 1978, Oct. 30, vol. 47, no. 1141, pp. 531, 541.

The 250-bed hospital, shaped like a cross, has a two-storey front wing and five-storey side and rear wings. To allow for the building of additional storeys the foundations under the front wing are extra heavy and the high-rise facade is of adaptable design. In the centre of the cross are four lifts and the main staircase. The technical rooms, which include boiler rooms and air-conditioning installations, are incorporated in the building on the third and fourth floors of the rear wing. This wing has, on the second floor, the theatre suites and central sterilization, on the first floor, the laboratory and dispensary, and on the ground floor the X-ray and traumatology departments. The side wings, from first to fourth floor inclusive, accommodate the 36-bed nursing units, each with seven four-bedded, two double, four single rooms and the usual offices. The central hall of each floor has a smoker's day room and the fourth floor also has a staff restaurant. On the ground floor of the front wing is the physiotherapy department, and on the first floor are administrative offices. Also on the ground floor are domestic and technical services, mortuary, storage rooms, main kitchen, children's department and the polyclinic with its waiting rooms in the central hall. Colour decorations harmonize with functions of individual departments and materials are chosen with a view to easy maintenance. The terrain of approximately 4.2 hectares is laid out as a park and includes a children's playground and sunken car park areas. The paper includes two pictures and names of firms involved in the building project.

629. Åker, J. Utbyggingen av Sentralsykehuset i Akershus. **[Extensions to the Central Hospital, Akershus.]** *Norsk Sykehustidende*, Oslo, 1978, Dec., vol. 51, no. 12, pp. 258-260, 262, 264-266.

Akershus Central Hospital, built in 1960, serves the Lilleström (North-eastern) district of Greater Oslo. There were only 540 beds until the new 96-bed extension, commenced in 1974, was opened in 1978. The extensions comprise a five-storey north block, containing the pathology department, offices, a 32-bed isolation department, a 26-bed otorhinolaryngological department and a 38-bed gastroenterological department. The 7-storey west wing extension contains a bedding centre, out-patients, department, X-ray department, the clinical, chemical and isotope laboratory, and surgical departments. Reconstruction in the existing hospital has provided an intensive care ward, a physiotherapy department, offices, kitchen, cafeteria, incinerators and a

telephone exchange. The north wing area totals 11,850 m^2 and the west 9,500 m^2 which increases the area of the hospital from 40,000 m^2 to 60,000 m^2. The total budgeted cost is £16 million, and since construction costs were higher than expected, equipment purchases are having to be restricted in scale. The county has applied for 100 new established posts, but only 45½ have been granted. The article is illustrated with a general view of the hospital, and ground plans of the medico-surgical ward, out-patients, department and the department of surgery.

630. BROMAN, J. Kirurgblocket vid Centrallasarettet i Eskilstuna: projektering, upphandling och produktion. **[The surgical block of the Central Hospital, Eskilstuna: planning, purchasing and production.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 11, pp. 709-710, 713, 715, 717-718.

The nine-storey surgical block has a total area of 33,000 m^2 (floor area 17,000 m^2) and a volume of 132,000 m^3. The total estimated cost (£15 million) is distributed between initial expenditure (£860,000) construction (£11.25 million) and equipment (£3 million). The planning programme involved: projection (1975 to 1977); construction (1976 to 1978); equipping (October 1977 to November 1978); and opening (September 1978). The basic philosophy of the planning process was that it should be possible to accommodate all activities except the treatment of cancer in a general (multi-purpose) building. Plans had to be flexible to allow frequent modification until the final plan was agreed some time after building began. Construction was completed in April 1978 and the block came into use in September. Corridors have false ceilings concealing piping, ducts, etc., which can be opened for inspection throughout their length. Mineral wool boarding is used as a sound insulator in all large wards. The plumbing is installed in accordance with the new Swedish standard SBN 75. The lighting recommended by Spri is felt to be too bright, so three-tube industrial fluorescent light fittings have been installed in association with high reflectivity wall paints. The article is illustrated with an exploded diagram of seven of the block's nine storeys, and four schematic diagrams of the consultation, planning and construction phases.

631. KALLDAL, A. Den nya normalvårdavdelningen vid Centrallasarettet i Eskilstuna. **[The new nursing areas of the Central Hospital, Eskilstuna.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 11, pp. 727, 729, 731.

The plans for the wards were based on the following requirements: (i) about 60 beds per ward storey; (ii) ease of observation; (iii) concentration of isolation rooms and single bed rooms near night nurse's office; (iv) shortest possible walking distances; (v) flexibility of application; (vi) patients' sense of security; (vii) flexibility of organization; (viii) limited circulation of staff, to prevent cross infection; and (ix) division of labour according to competence. Tests were made of the Board of Health's standard ward plan, wards in two other hospitals, and Eskilstuna's own proposals, which were chosen in the final analysis. Each ward comprises 2,000 m^2, or 33.4 m^2 per bed. The ward is built on a combined single and double-corridor plan and is divided into three 22-bed sections. Each section has two decontamination rooms, two stores and four patients' toilets. Patients are in one-, two-, three- or six-bedded rooms—a partition in the large six-bedded rooms gives the impression of it only being three-bedded. The department was taken over in the autumn of 1978 and will be

tested for a year to see what modifications will be required. The article is illustrated with a ground plan of one floor, an interior photograph of a section of a six-bedded room, and the staffing establishment table for the three sub-units: orthopaedics, cancer, and maternity and gynaecology, providing 109 staff places in all.

632. KELLINGE, C. E. Centrallasarettet i Eskilstuna—det nya kirurgblocket. **[The Central Hospital, Eskilstuna—the new surgical block.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 11, pp. 721-722, 724-725.

The plans for the surgical block at Eskilstuna were based on serving a county with a population of 265,500. The plans comprised two surgical admissions departments (69,000 admissions a year), an orthopaedics workshop, a speech and hearing unit, surgical intensive care, normal wards, a 36-bed acute care centre, a cancer unit, an eight-bed maternity unit for 3,500 births a year, a 15-room day-care unit, a cleaners' centre, an air-raid shelter (used in peacetime as a changing room), a telephone exchange, and a staff room. The project is planned on the basis of a multi-purpose pattern to allow various functions to take place within an unaltered framework. This does not apply to the intensive care unit, needing special ventilation, or to the cancer unit, which requires radiation shielding, accommodation for the cobalt apparatus and the linear accelerator, and a special transformer. The admissions block has two underground storeys and two above; the ward block has two basement floors, a ground floor and six storeys above ground. The under-basement is a culvert deck for pipes, ducts, etc., and the ninth floor contains the extractor fans. An engineering block provides: steam; distilled water; compressed air; oxygen; nitrous oxide; refrigeration water; and electricity. Hot and cold water, main drainage and rainwater drainage are the responsibility of the local authority. The article includes a detailed technical description of the building, an aerial photograph and a diagram of the completed project.

633. KELLINGE, C. E. Det nya kirurgblocket vid Centrallasarettet i Eskilstuna: de inledande skedena av planeringen. **[The new surgical block of the Central Hospital, Eskilstuna: the introductory planning phases.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 11, pp. 705-707.

The following phases occur in planning: (i) preliminary review and definition of aims; (ii) sketch plan stage, with each department's requirements for space; (iii) calculations on standards and costs; and (iv) tenders. When planning of the surgical and medical blocks commenced in 1974, the hospital had already opened its new central operating theatre and X-ray departments. Stage I of the new construction (1975) comprised acute care centre, normal wards, surgical intensive care, maternity, surgical appointments reception, and cancer reception and treatment unit. Stage II (since 1975) comprises normal wards, medical intensive care and medical appointments reception. There will be 715 beds by 1985, of which 325 will be new. In the author's opinion the plan over-estimates current bed availability and provides too many acute beds and too few nursing home places. The projected cost was £7½ million in 1970 values, later amended to £11 million in 1970 values as a result of increasing the size of the surgical block from 80,000 m^3 to 126,000 m^3 and reducing the medical block from

80,000 m^3 to 76,000 m^3. The article is illustrated with two figures showing plans for the large scale moves to follow completion of each phase, and comparative ground plans of the Board of Health's standard hospital design and the design actually chosen.

634. ZAGRADSKY, A. L'hôpital du Moenchsberg à Mulhouse. **[Moenchsberg Hospital, Mulhouse.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Dec., vol. 33, no. 399, pp. 54-56.

The first 460-bed section of the new Moenchsberg Hospital at Mulhouse has been completed. Particular attention was paid at the planning stage to the choice of building materials, economy of movement for the staff, clear and logical zoning, internal harmony of space and volume, and the choice of colour schemes. The hospital building proper is linked by a spacious underground passage to a four-floor annexe containing the kitchen, laundry, sterilization centre, and pharmacy. In the main building, the laboratories, emergency department, and operating blocks are on the lower ground floor; the upper ground floor is devoted to the reception area, shops, a cafeteria for visitors, offices, the X-ray department, rehabilitation unit, and out-patient clinics, while the five 'hotel' floors above are each divided into three 30-bed care units (10 single rooms and 10 two-bedded rooms) which are grouped around the central vertical communications nucleus.

635. CARLSSON, G. Huvudblocket vid Regionsjukhuset i Linköping. **[The main block of the Regional Hospital in Linköping.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 12, pp. 834-835.

In 1965 the Swedish Parliament resolved to extend Linköping Regional Hospital and install medical teaching and research facilities. Extensions were commenced in 1967, and the new block was built between 1971 and 1977. It consists of a double tower block and two low-rise wings containing the central reception area, specimen-taking centre, admissions departments, blood bank, X-ray department, surgical centre and laboratories. The tower blocks house five ward storeys, maternity, recovery and intensive care units, teaching accommodation and doctors' offices. Patients arriving at reception pay the hospital fee, receive two embossed cards containing their particulars, and are sent via the specimen-taking centre to the relevant admissions room. The X-ray centre has the most modern scanning equipment in Europe and takes some 100,000 X-rays a year, a third of which are acute. All operations except eye, ear and orthopaedic surgery are carried out in the 20 operating theatres in the central operating department. There are 20, 32-bed wards divided into six, four-bedded rooms and eight single rooms. There are spacious nurses' offices. There is a high hygienic standard—with 14 toilets and three showers on each ward—and day-rooms for all patients. Food is centrally distributed. The article is illustrated with photographs of the reception desk and an operating theatre.

636. PEDERSEN, K. V. Från centrallasarett till region- och undervisningssjukhus: nytt huvudblock vid Regionsjukhuset i Linköping. **[From central hospital to regional and teaching hospital: the new main block of the Regional Hospital in Linköping.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 12, pp. 818-825.

From 1900 to 1960, Linköping Infirmary evolved as a specialized central hospital. Since 1960 it has, as Linköping Hospital, been the regional hospital for three counties

with a total population of 900,000. In 1972 the first 300 clinical medical students started training at the hospital (pre-clinical studies take place at Uppsala). The new main block, built between 1973 and 1977, primarily houses the department of surgery. In addition there are children's wards and centralized medical and technical radio-diagnostic services, and operating theatre, blood bank, laboratory and sterilization services as well as the National Forensic Institution's blood group serological facility. The block consists of two parallel wings with an 11-storey tower block and two wide five-storey platform blocks. The tower, designed on a modified double corridor system, has a total of 20 wards in the five upper storeys, the offices, service departments, etc., being lower down. A normal ward consists of 32 beds: eight single rooms and four four-bed rooms. The two children's wards have 56 beds each. All rooms receive daylight through large windows, as an energy-saving measure. The chapel, the walls and various open spaces have been decorated by leading artists and sculptors. The article is illustrated with two exterior views, ground plans of the site and a 64-bed ward storey, and 14 interior views.

637. Notspital Herisau. **[Herisau Civil Defence Hospital.]** *Veska*, Zurich, 1978, Oct., vol. 42, no. 10, pp. 533-538.

The Herisau Civil Defence Hospital came into use in the autumn of 1976. It was constructed underground in the grounds of the Herisau District Hospital and has two floors. There are four operating rooms and beds for 650 patients and 150 staff. The hospital comes into use when the district hospital cannot meet the demand, i.e., in the case of catastrophes occurring in war or peace. Beds are in bunk form, in two-tiers for patients and three-tiers for staff: the bunk beds are mobile. The hospital should be self-sufficient for up to 14 days. The paper is illustrated with a plan of each floor and four photographs.

DESIGN OF SPECIAL HOSPITALS OR UNITS

See also Abstract Nos. 630, 632-633, 760

638. **Addition's: imaginative and appealing design enhances hospital's image and functional layout.** *Hospitals*, Chicago, 1978, Nov. 16, vol. 52, no. 22, pp. 38-39, 42.

The second stage of a four-phase, long-range expansion of Children's Medical Center, Dayton, Ohio, opened in June 1978, is a two-storey wing immediately in front of the original one-storey colonial-style building and a four-storey building. Designed to resemble a street, it accommodates a two-storey play/waiting area and the out-patient clinic at one end, the emergency department at the other, and the main entrance to the hospital at mid-point. An out-patient pharmacy, snack bar, gift shop and chapel are adjacent to the main lobby and administrative area. On the first floor are a dental clinic, library offices, educational facilities, and the out-patient surgical suite. The basement provides space for financial services, mechanical equipment and storage. Three coloured photographs of the wing are included but no plans.

ENGINEERING SERVICES

INSTALLATIONS IN GENERAL

See also Abstract No. 666

639. SWETCHINE, J. Expériences français d'hôpitaux: types. **[Standard hospitals —French experience.]** *Hospital Engineering*, London, 1978, Dec., vol. 32, no. 10, pp. 19-21.

A short account is presented of French hospital construction policy over the last decade, which is based on standard hospitals which can be adapted to different programmes and sites. Eighteen acute hospitals (Beaune, Fontenoy, or Duquesne-type) have been built, and very many V120 and V240 geriatric medium- and long-stay hospitals. Construction time has been reduced by two-thirds and costs by at least 10 per cent. A recent development has been the introduction of standard hospital components systems; and components being, for example, an X-ray department, an operating block, or a group of laboratories. This account includes five photographs of hospitals and three plans of components.

640. LARSSON, H. Nytt huvudblock vid Regionsjukhuset i Linköping. VVS-anläggningar. **[The new main block of the Regional Hospital in Linköping—heating, ventilation and water supply installations.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 12, pp. 826, 828.

The extension of Linköping Regional Hospital commenced in 1967, the first stage comprised supply facilities, and the second stage (1973 to 1977) comprised ward blocks, buildings for psychiatric care, etc. The total volume comprised 250,000 m^3. The main block consists of six sub-units of which two are tower constructions with wards on the upper five floors and teaching accommodation, the cafeteria, and laboratories, etc., below. The low-rise wings house therapeutic units. Technical installations are housed on the top floor of the low blocks and a middle floor of the towers, and comprise a central room for heat exchangers, water heaters, central water de-ionization plants, and reducing plant for steam and gases. Each unit contains shunts for heat and cold. Hot and cold water, steam, cooling water and medical gases (liquid petroleum gas, compressed air, oxygen, nitrous oxide, nitrogen gas, acetylene and liquid nitrogen) are distributed from the central engineering department. The block is built of concrete sandwich elements cladding a steel frame. All technical installations are free from the framework, and in order to preserve the flexibility of the building, all gas and ventilation ducts are concentrated in a few vertical shafts. The main block houses 17 three-room operating units, and conditioned air is supplied via perforated ceilings. There are two drainage systems: the normal drains are connected to the town sewers; and there is an infective drainage system which is treated internally before discharge to the main drains.

ELECTRICAL INSTALLATIONS AND EQUIPMENT

See Abstract No. 641

COMMUNICATION SYSTEMS

641. WIDGREN, A. and OSÉEN, A. El-tele för huvudblocket vid Regionsjukhuset i Linköping. **[Electrical and telecommunications equipment for the main block of the Regional Hospital in Linköping.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 12, pp. 829-832.

Vertical electrical communication between the lead-in conduits in the under-basement and the 13th storey of the tower block, where all technical apparatus is

concentrated above the surgical operating centre, is via a single shaft. Horizontal ducting is installed in the false ceilings above all corridors, protected by hinged flaps. The main block of the hospital has its own transformer station with four 1.5 MVA transformers, subsidiary to the hospital's main power take-off. Power is fed in at two points from the 10 kV grid, and there are also two 1.2 MVA reserve generators. There are separate 5-lead, foil-wrapped wiring systems for normal and vital electrical supplies. In addition to the reserve generators, there is a battery-driven emergency electrical system for the operating theatre and for maternity and intensive care. The block is lit by over 15,000 small-sized fluorescent fittings. Three-phase power supply is used throughout, and the 100 m^2 roof is cable-heated to prevent snow collecting. There are 25 lifts. There is a system of call-lamps, centrally operated clocks, internal distribution of radio and television programmes, closed circuit television, a 3,000-line high-speed telephone exchange, an electronic fail warning system on sensitive apparatus, and an automatic fire alarm system. The article is illustrated with a block diagram showing the division of responsibility for installing the various portions of the system, and four photographs of features of the installation.

TRANSPORT IN GENERAL

See Abstract No. 731

HEATING

See also Abstract No. 700

642. GRAS, P. Economies d'énergies et énergies nouvelles pour l'hôpital. **[Energy saving and new energy systems in the hospital.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Dec., vol. 33, no. 399, pp. 40-43.

The author starts by outlining the phases in formation of a hospital energy policy; information, systematic research and analysis, methodical and controlled application, and programmed maintenance. He then points out that current hospital design, using reinforced concrete with thin walls and poor insulation, is costly in terms of energy. Considerable economies could be achieved if, for example, the fullest possible use were made of natural as opposed to artificial light; the cost of air conditioning as well as that of lighting would then be reduced. He discusses the various alternative energy sources, and geothermic energy in particular. In the new hospital at Montpellier sheets of warm water underground will be tapped so as to provide energy for the hot water system. The hospital will also have solar energy captors, a heat recovery system, a heat pump with a power of 4,500,000 negative kilocalories an hour, and total energy sub-stations with a power of 2,400 kW. Economies of the order of 40 per cent on heating and 60 per cent on requirements for refrigeration should thereby be achieved.

VENTILATION AND AIR CONDITIONING

See Abstract No. 640

PIPING INSTALLATIONS

See also Abstract No. 711

643. ROBINSON, J. S. **A continuing saga of piped medical gas supply.** *Anaesthesia*, Oxford, 1979, Jan., vol. 34, no. 1, pp. 66-70.

The first part of this paper is a brief history of the preparation of the British Standard Specification for medical gas pipeline systems, terminal units, hose assemblies and connections to medical equipment. The second part considers how the Standard relates to the recommendations of inquiries into anaesthetic incidents at Kent and Canterbury Hospital and Westminster Hospital, and other reported incidents involving piped medical gas supplies.

SANITARY EQUIPMENT AND FITTINGS

See also Abstract No. 640

644. LINDEMAN, W. Transportleidingen voor ziekenhuisafvalwater Toepassing van onbeschermd materiaal bijzonder riskant. **[Transport pipes for hospital waste water: the use of unprotected material is especially risky.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1978, Dec., vol. 47, no. 1143, pp. 642-644, 649.

The paper discusses the choice of materials for hospital waste pipes in relation to the type of waste water. Not all existing materials are discussed and some factors, such as composition of soil surrounding the pipes, differences in waste from individual hospitals, water temperatures above 25°C, specific technical problems, costs and installations, are not included. Samples of waste water from a hospital should be taken for laboratory testing for aggressive agents (chlorides, sulphites, etc.) and measurements be taken for pH, temperatures and time factors. Pipe materials should be able to withstand the required pressures and be tested against the laboratory findings. The properties are briefly discussed of the following materials: PVC (polyvinylchloride), HPE (hard polyethene), Polypropene (PP), nodular cast iron, nodular cast iron with nylon coating, seamless steel, seamless steel with nylon coating, steel with PVDF (polyvinylidenefluoride)-coating, rust-resistant steel, asbestos-cement and concrete with epoxy coating, GVK (glass fibre-reinforced) epoxy pipes, GVK polyester, Grès and rubber connections. It is concluded that pipes of unprotected steel, asbestos cement or concrete are unsuitable as hospital waste water pipes. HPE and nodular cast iron carry some risks which could be reduced by nylon coating, though damage to the coating can cause 'pit' corrosion. When using epoxy pipes, the concentration of oxidizing acids, halogen compounds and phenols has to be checked. No definite choices are recommended.

EQUIPMENT, FITTINGS, FURNITURE

EQUIPMENT GENERALLY

See also Abstract No. 749

645. WRIGHT, B. M. **A miniature Wright peak-flow meter.** *British Medical Journal*, London, 1978, Dec. 9, vol. ii, pp. 1627-1628.

A new version of the Wright peak-flow meter, used to measure the maximum expiratory flow rate during a forced expiration, is described. The meter is tubular with

a spring-loaded piston and a longitudinal slot through which air escapes. It is designed to respond only to peak flow and not to the rate of rise, and is simple to clean and disinfect. The performance of the mini-meter is identical with the standard instrument and both should prove useful clinically.

MEDICAL EQUIPMENT

646. SANDERS, C. A. **Medical technology: who's to say when we've had enough.** *Hospitals*, Chicago, 1978, Nov. 16, vol. 52, no. 22, pp. 66-69, 72.

In the 1970s, medical technology has advanced to the point where, with the exception of sudden death, there is virtually no situation in which life cannot be prolonged to a varying degree. The question is no longer whether the advances in medical science can be applied to preserve life but, rather, whether such life is worthy of preservation by the means available. This paper discusses the important social, economic, legal and medical implications which have to be faced, as a result of advances in medical technology. Ultimately physicians and providers bear responsibility for patient care and for the types of services delivered.

STAFF GENERALLY

STAFF COMPLEMENTS

See Abstract Nos. 666, 691, 740

STAFF MANAGEMENT

See also Abstract Nos. 648, 655

647. STRATTON, W. E. and FLYNN, W. R. **The need for management development in health care institutions.** *Hospital Topics*, Sarasota, 1978, Sept./Oct., vol. 56, no. 5, pp. 26-31.

A questionnaire sent to all 58 hospital administrators in the State of Idaho was completed by 36. It covered staff development needs, current efforts to meet them, and such problems as motivation and morale. With one exception, administrators indicated a need for training in each of five areas: (i) supervisory and administrative skills for staff in intermediate supervisory positions; (ii) supplementary technical training for nursing staff; (iii) training for administrative staff; (iv) training to upgrade unskilled and semi-skilled staff; and (v) supplementary technical training for other hospital staff. The highest need was for development of supervisory and administrative skills, and was greatest at intermediate levels. Replies to questions concerning motivation and morale provided additional evidence of the need for supervisory training. Responses to other questions indicated that the hospitals are receptive to innovative management practices.

STAFF TRAINING

See Abstract Nos. 649, 651, 656-661, 721, 765, 772

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

648. NAEGLER, H. Möglichkeiten der Entlastung des Krankenhaus-Managements durch Stäbe. **[Possibilities for taking the load off management by the use of special staff.]** *Krankenhaus Umschau*, Kulmbach, 1978, Sept., vol. 47, no. 9, pp. 644, 647-650.

The four phases of decision-making with which a hospital management is concerned are: (i) determining and defining the problem; (ii) listing alternative solutions; (iii) evaluating and comparing the alternative solutions; and (iv) determining the solution to be adopted. Hospital management can delegate either the whole process of decision-making or phases of it. If it is decided to delegate individual phases the appointment of staff members for this work is advised. An example is given of the post of head of the staff for planning, organization and control and of a subordinate to this officer. The jobs are defined and full job descriptions are set out, together with the qualifications required.

649. BIERLEUTGEB, L. Managementausbildung für leitende Krankenhausmitarbeiter. **[Management training for hospital administrative staff.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1978, June, vol. 19, no. 6, pp. 323-327.

In April 1978 the Lower Austria Association of Hospital Administrators held a 12-day management course for senior hospital staff. The subjects covered were: political economy (16 hours); industrial management (32 hours); principles of medicine and medical services (eight hours); and hospital planning and construction (24 hours). Participants also discussed separate topics in syndicates. The course was arranged in collaboration with the Vienna College of Economics, the German Hospital Institute and the Government of Lower Austria. Summaries are given of each of the four main subjects concerned.

650. BROWN, M. **Changing role of the administrator in multiple-hospital systems.** *Hospital and Health Services Administration*, Chicago, 1978, vol. 23, no. 4, pp. 6-19.

Federal initiatives, inflation, social forces, and managerial and medical technology changes during the last 10 years make it imperative to rethink the role of the hospital administrator and the organization of hospitals necessary to play a creative role in health policy locally and nationally. This paper examines a number of questions regarding multiple-hospital systems by studying one such system in the south-eastern part of the United States. Data analysis covered three periods: 1947 to 1964, 1965 to 1967 and 1968 to 1971, with a later follow-up. Decision-making is moving to areas outside the individual hospital, leading to increased demand on the time and attention of administrators. The administrator must, however, build a coalition of persons whose interests, talents, skills and personal political positions make them important to the direction of the system.

MEDICAL STAFF

See also Abstract Nos. 683, 765

651. RICHARDS, R. K. **Continuing medical education: perspectives, problems, prognosis.** New Haven & London, Yale University Press, 1978, viii, 214pp. £10.80

The author traces the historical antecedents of continuing medical education in the United States and the forces for and against it. He offers guidelines in the hope that a broad programme for improving health care will be developed. Aspects considered include: the reform of the medical schools; the rise of specialty practice and training; the development and growth of continuing medical education; and the issues in the organization, financing and regulation of the health industry that affect physician attitudes, motivation and behaviour. A select bibliography is included (pp. 203-207).

NURSING STAFF

See also Abstract Nos. 737, 766, 772-774

652. DOLAN, J. A. **Nursing in society: a historical perspective.** 14th ed. Philadelphia & London, W. B. Saunders, 1978, viii, 402pp. £12.25

The 14th edition of this textbook pays special tribute to the achievements of Florence Nightingale. The concept of the history of nursing has been broadened to include nursing authopology, ancient cultures and the response to cultural diversity that has resulted in transcultural nursing. There is an emphasis on the emergence of the role and function of the nurse and the delivery of nursing services, especially in the last one hundred years in the United States. Selected references are included after each chapter.

653. KALISCH, P. A. and KALISCH, B. J. **The advance of American nursing.** Boston, Mass., Little, Brown and Company, 1978, viii, 757pp. £7.15

This textbook was written to provide a modern historic approach to understanding nursing in the United States. The development of nursing from Hippocrates to Florence Nightingale and the present day is considered from the clinical, social, cultural, psychological and educational aspects. A select bibliography is included (pp. 693-727).

654. HOCKEY, L. **The future nurse: selection and training; autonomy; should her health-care role be modified for future patient demands?** *Journal of Advanced Nursing*, Oxford, 1978, Nov., vol. 3, no. 6, pp. 571-582.

The focus of this paper is on the relationship between the nurse's role and the demands of patients, now and in the future. The incongruity between patients' needs and their demands is discussed and the question is raised as to whether the nurse's skills and knowledge currently acquired will be appropriate to meet patients' needs and demands in the future. Future patient needs and demands are not the only external pressures for possible changes in the nurse's role; there is also pressure as a result of advances in medical treatment and technology and the changing roles of other health

professionals. The paper highlights the dilemma between the profession having to give way to such external pressures and the risk of preparing nurses for irrelevant roles. A case is made for greater interchangeability of first level health care workers through a common portal of entry. It is suggested that diversification of studies into the various professional fields should occur after the foundation course in health care and after suitable counselling. Among the top level professionally qualified nurses there should be both generalists and specialists. A specialty for nursing generalists on the same lines as general medical practitioners is advocated. A plea is made for a liberating rather than a restricting interpretation of professionalism so that necessary changes in the nurse's role can be initiated and directed by the profession rather than being forced upon it by external pressures.

655. ROSTOWSKY, R. D. **Decentralization: innovation in management.** *Hospital Topics*, Sarasota, 1978, Sept./Oct., vol. 56, no. 5, pp. 14-16.

This paper describes the development of a decentralized departmental organization for the nursing service at the 500-bed St. Joseph's Hospital, Providence, R.I. A single layer for all unit nursing staff members has been created. The reduction in the number of nursing layers has been made possible by the creation of patient services co-ordinators who are totally responsible for all functions, both in clinical nursing and general administration areas, for a 24-hour period. The nursing service is headed by a director of patient services; each of the hospital's buildings (seven miles apart) has a separate patient services director. Organization charts of the former and present systems are included. Three years after the introduction of the decentralized organization, a survey of nurses revealed positive attitudes to decentralization.

656. SHEAHAN, J. **Educating teachers of nursing: the contribution of pedagogical studies.** *Journal of Advanced Nursing*, Oxford, 1978, Nov., vol. 3, no. 6, pp. 515-524.

Pedagogy has been defined as being concerned with the transmission of curricula. The elements found in a curriculum are outlined, followed by an account of objectives. General and specific objectives are considered. Objectives are also considered in the context of domains, mention being made of the cognitive, affective, psychomotor and experiential domains. Attempts are made to answer basic questions, on lesson planning. Opportunities to integrate theory and practice are identified and a variety of teaching methods are set out. The essentials and potentials of teaching practice are explained together with a set of general and specific objectives. Aspects of the assessment of learning and of curriculum planning and the wider aspect of the work of teachers of nursing are discussed.

657. MORGAN, D. **Upgrading the work of new graduate nurses.** *Dimensions in Health Service*, Ottawa, 1978, Nov., vol. 55, no. 11, pp. 28-30, 33.

The two-year diploma nursing course in Ontario has been criticized for the lack of clinical experience it offers its students. The St. Thomas-Elgin General Hospital, St. Thomas, Ontario, devised a programme to suit the needs of these new graduates. They were first assigned to basic medical or surgical units for eight weeks, followed by a rotation through the special units, which added up to a total orientation programme

of six months. Their progress was evaluated at each stage, but, despite the use of checklists, graduates were not always aware of areas in which they needed assistance. They were not experienced enough to be transferred from one special unit to another by the end of the study period. The study showed that orientation programmes should: (i) be longer and more flexible; and (ii) be more specific about the experience required. All those concerned with nursing in Ontario should join together as a team in providing a curriculum for nurse training which will satisfy the needs of all concerned.

658. DI MARCO, N. and HILLIARD, M. **Comparisons of associate, diploma and baccalaureate degree nurses' state board, quality of patient care, competency rating, supervisor rating, subordinates' satisfaction with supervision and self-report job satisfaction scores.** *International Journal of Nursing Studies*, Oxford, 1978, vol. 15, no. 4, pp. 163-170.

In a study in a 300-bed, university affiliated, United States midwest hospital, 25 nurses with baccalaureate degrees and 44 from associate degree and diploma programmes were compared for: scores in state board examinations; nursing audit; competency rating; supervisor rating; subordinates' satisfaction with supervision; and self-report job satisfaction. The results are presented in four tables. The findings support the approach of most hospital administrators of recruiting nurses without regard to the type of training received. They also cast doubt on assertions that the baccalaureate degree nurse is better qualified to assume a team leader role. The results might also be viewed as a vote of confidence for both associate degree and diploma nursing programmes. It may be that the type of preparation received in baccalaureate programmes manifests itself in superior performance in other nursing positions, such as clinical nurse, supervisor and in the ambulatory care areas.

659. ALLEN, H. O. and MURRELL, J., editors. **Nurse training: an enterprise in curriculum development at St. Thomas' Hospital, London.** Plymouth, Macdonald & Evans, 1978, ix, 207pp. £5.00

This book is an account of work carried out at the Nightingale School of Nursing, St. Thomas' Hospital, London. It is a collection of various components of the work of a curriculum study group. The first section presents the content of three lecture and discussion sessions held in the early days of the study group. The various features involved in planning a revised curriculum and in curriculum evaluation are discussed. The second section charts the stages of growth of the study group and highlights the advantages and disadvantages of working in this way. The third section gives some examples of the results of all the expertise brought to bear upon the problem of educating nurses, so that they will be encouraged to use their minds as well as their hands. Ten appendices give examples of the course programmes offered in the revised syllabus. A short bibliography is included.

660. HAYWARD, J. **A growing partnership.** *Nursing Times*, London, 1978, Dec. 7, vol. 74, no. 49, pp. 2,028-2,033.

In this inaugural lecture, the new Professor of Nursing Studies at Chelsea College, University of London, examines the relationship between nursing and the universities.

The development of university courses in nursing and the history of the involvement of nursing with the universities in Great Britain are outlined. The problems of linking the universities to nursing are discussed and recommendations made for increasing the number of graduate nurses.

661. WASER, E. Das Experimentierprogramm der Krankenpflegeschule Zürich. **[The experimental course at the Zurich School of Nursing.]** *Veska*, Zurich, 1978, Sept., vol. 42, no. 9, pp. 455-457.

In 1973 the Zurich School of nursing adopted an experimental four-year course leading to a diploma in general nursing and in the nursing of children, but the traditional three-year course was also to continue. The aim was that 'the qualified nurse should be able to care for the healthy, the sick and the handicapped of all ages and in all circumstances'. Training is in eight phases: contact with the healthy and normal, beginning with children; contact with the sick of all ages; working with midwives and with the newborn; medical nursing (six months with adults and six months with children); surgical nursing (six months shared between adults and children); health services, preventive medicine and preventive care; contact with the mentally ill and with multiply handicapped children; and six months with children or adults for in-depth study of the art of nursing and collaboration. These phases are interspersed with block courses, study days, evaluation periods and holidays. The student must obtain a 'satisfactory' mark at the end of each phase before passing on to the next. By 1989 it should be possible to evaluate this integrated course and decide whether it should be used throughout Switzerland.

662. ALEXANDER, E. L. **Nursing administration in the hospital health care system.** 2nd edition. St. Louis, C. V. Mosby, 1978, vii, 289pp. £10.80

The second edition of this book has been revised to update the contents in relation to recent events and new concepts in nursing. It attempts to present information by relating concepts and methodology to the management of nursing service input in order to obtain the desired outcomes. Chapters 1 to 5 provide a frame of reference concerning the concepts of administration from the past to the present day. Chapters 6 to 8 focus on administrative theories and principles and the need to define goals and objectives. Chapters 9 and 10 consider methods of organization. Chapters 11 to 17 emphasize the mechanisms and methodologies required to co-ordinate, direct and control activities related to nursing problems, assignment and staffing, budgeting, quality assurance, and performance evaluation. References are included after each chapter.

663. LEININGER, M. M., editor. **Transcultural nursing: concepts, theories and practices.** New York & Chichester, John Wiley & Sons, 1978, xvii, 532pp. £12.35

This book is a sequel to 'Nursing and Anthropology: Two Worlds to Blend' and considers developments in nursing care as a result of studies of the cultural beliefs, values and practices of diverse cultural groups. The book is divided into four parts.

Part I highlights some of the historical aspects, theories and research developments in the field. Part II considers the use of cultural concepts in patient care and the need to identify cultural differences and similarities among cultures is emphasized. Part III considers the theories and models in use in transcultural nursing; part IV considers the philosophical beliefs, processes and problems related to the inclusion of transcultural material and cultural concepts into nurse training curricula. In addition, illustrative course outlines, a bibliography (pp. 502-518) and some basic curricular concepts for transcultural teaching and field study have been included.

664. MacKinnon, G. **An assessment of primary nursing.** *Dimensions in Health Service*, Ottawa, 1978, Nov., vol. 55, no. 11, pp. 18, 20-22.

A reduction in nursing administrative staff and the delegation of clerical duties to others has enabled the Dr. Everitt Chalmers Hospital, Fredericton, New Brunswick, to implement a primary nursing system. Eight Patient Care Co-ordinators are responsible to the Director of Nursing for planning the nursing services in their areas and the scheme allows nurses to be directly responsible for a group of patients assigned to their care. After 12 months an informal evaluation of the scheme was carried out. Nurses agreed that primary care: (i) gave a more patient-centred and consistent service; (ii) increased job satisfaction and responsibility; (iii) improved nurse-patient, but not always nurse-doctor communication; and (iv) produced an increase in knowledge and nursing skills. Patients were very pleased with the system, as were physicians and other hospital departments, but some commented that the primary nurse, although well informed about her patients, was not always easily available.

OTHER PROFESSIONAL AND TECHNICAL STAFF

See also Abstract No. 721

665. Trampisch, W. and others. Neue Krankenhaus-Berufe. **[New professions in hospitals.]** *Krankenhaus Umschau*, Kulmbach, 1978, Oct., vol. 47, no. 10, pp. 732, 735-738.

Three new hospital professions in Western Germany are described and their training, qualifications and duties listed. They are: biomedical engineer; hospital technology engineer; and environment and hygiene engineer.

666. Steger, T. Der Personalbedarf im Technischen Dienst. **[Staffing the technical service.]** *Veska*, Zurich, 1978, Sept., vol. 42, no. 9, pp. 461-466.

Determining technical services staff complements on the basis of averages per 100 beds does not allow for differing needs of varying types of hospitals. This paper makes proposals for a more accurate method of determining staff needs. Weightings are listed for various types of bed (for example, with a normal hospital bed given a factor of 1.0, an intensive care bed has a factor of 2.5). A distinction is drawn between two categories of work: (i) maintenance work directly related to technical services; and (ii) duties less directly related to technical work (e.g. instruction, training, administration). If too much time is devoted to category (i) the staff is overloaded: if too little,

staff is underused. The system involves careful records being kept for each staff member on the type of work done. The tables included in the paper enable staff complements to be determined for individual hospitals with greater accuracy than by traditional methods.

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 647, 649-650, 662, 758, 761

667. JOHNSON, R. L. **Appraising performance at the top.** *Hospital and Health Services Administration*, Chicago, 1978, vol. 23, no. 4, pp. 36-47.

As a result of increased government interest in hospitals, traditional performance appraisal systems stop short of what is now needed. Measuring the performance of the chief executive officer and the governing board is a different process, but should be made standard procedure for hospitals. This paper first discusses the evaluation of board members, the need for self-criticism by boards, and the type of questions boards should be answering. It goes on to examine the role of the chief executive officer and discuss a formal appraisal system for this officer.

668. MAILLARD, C. L'évaluation de la gestion de l'établissement hospitalier. **[Evaluation of hospital management.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Nov., vol. 33, no. 398, pp. 56-63.

A review is presented of methods of evaluating hospital management which covers: (a) evaluation of performance in relation to a norm; (b) evaluation of production; (c) the means of production (staff, buildings, land, facilities); (d) evaluation of techniques used to exploit the means of production (is costly equipment in full-time use? Are staff always productively employed?); (e) evaluation of the financial situation; and (f) assessment of the hospital's position in its environment (what is its reputation as an employer, as a provider of care, as a place for training, as a socio-economic activity?). Evaluation should be periodic, comprehensive, and clear, and should serve as a guide to future improvement rather than as an occasion for apportioning blame.

669. JANSEN, R. and SCHEID, W.-M. Realisierung von Verbundsystemen. Grundlegende Betrachtungen aus logistischer Sicht. **[The organization of combined systems; fundamental considerations from a logistic point of view.]** *Krankenhaus Umschau*, Kulmbach, 1978, Sept., vol. 47, no. 9, pp. 661-662, 667.

Central services which cover the needs of several individual hospitals can effect economies in hospital running costs resulting from bulk purchasing, reduced storage needs, adequate reserves, and staff reductions. The following services can be centralized in this way: purchasing; stores; 'regeneration' (sterilization, workshops, laundries); kitchens; pharmacies; and refuse disposal. This paper discusses the logistics of such central services with particular reference to transport requirements.

670. BERGE, T. Driftsorganisering i sykehus. **[Hospital administration.]** *Sykehuset*, Oslo, 1978, vol. 41, no. 8, pp. 515-538.

There is a significant gulf between *demand* and *need* for hospital services. The need for medical services is decided on strict medical criteria: anyone falling outside these criteria is 'not ill' and goes on a waiting list. Politicians must distribute the available resources in accordance with their assessment of public needs. Hospital administration is defined as a process adopted within a given structure in a limited area in order to convert resources of staff, knowledge and equipment into hospital services. The aim of the system is to aid the sick, admit acute cases, instruct and inform staff, utilize resources effectively and provide staff with secure working conditions. In Oppland County, medical and administrative responsibilities are separated—but this division is difficult to maintain further down the hierarchy. Those in charge of individual departments are responsible for planning their activities so as to make optimum use of the available resources. The two county hospitals are operated as one Central Hospital with a common administration and a series of departmental councils. Budgeting and accounting have been automated, and the computer routines have been co-ordinated with those of the county council. The article is illustrated with three block diagrams of hospital and accounting organization.

GOVERNING BODIES, COMMITTEES

See Abstract No. 667

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 693-694, 700, 705, 741, 744, 755, 759

671. NACKEL, J. G. and WESBURY, S. A. **The process of resource allocation.** *Hospital and Health Services Administration*, Chicago, 1978, vol. 23, no. 4, pp. 75-89.

There is ample evidence that traditional resource allocation processes are not responsive to the operational problems of regulation, long-range planning and internal management needs. Also, there exists evidence of unreliability and inconsistency in these processes. One approach to more objective decision making would be to integrate organizational objectives into the evaluation criteria. Decisions must be based on their impact on the organization and not on 'the political process'. The type of approach tested in this research consisted of a process which directly assessed programmes based on effect on objectives. This type of approach would be viable for several types of resource allocation problems including: capital budgeting, zero-based budgeting, programme selection and operations budgeting. The Effectiveness Evaluation Resource Allocation Process (ERAP) presents a viable option to traditional approaches to resource allocation. Initial applications of ERAP can be made in conjunction with the traditional process to evaluate the effects of components of the decisions which went into the traditional process.

672. SIEBIG, J. Ein Wirtschaftlichkeitsindikator für das Krankenhaus—Konzeption und empirische Analyse. **[An economic index for hospital design and empirical analysis.]** *Krankenhaus Umschau*, Kulmbach, 1978, Oct., vol. 47, no. 10, pp. 728-731.

The indicators for determining hospital efficiency are discussed and examples are set out. The conclusion is that the true cost and therefore the efficiency of a hospital cannot be determined from the cost per case. The number of beds, the number of cases per bed and the relative number of intensive care cases play a dominant role which is reflected in the cost level. Attempts to reduce costs by increasing efficiency can have only a limited effect. In general cost levels can only be lowered if the services offered by the hospital or the salary levels of the staff are reduced. This means that in addition to cost relationships the services offered by the hospital must be investigated if the objective of cost limitation is to be attained.

673. LONGEST, B. B. **An empirical analysis of the quality/cost relationship.** *Hospital and Health Services Administration*, Chicago, 1978, vol. 23, no. 4, pp. 20-35.

This paper reports a study carried out to test the hypothesis that in general hospitals the direct costs of delivering hospital services are positively related to the quality of those services. Data were obtained from 10 hospitals in the metropolitan Atlanta area which met the criteria: community; general; medium-sized; accredited; not affiliated with a medical school; and short-stay. The 10 hospitals were ranked by two measures of cost (cost index and work-hour index) and four measures of quality (percentage of board-certified specialists, medical staff self-evaluation, outside expert evaluation, and severity adjusted death rate). To test the hypothesis in this study, Spearman rank-order correlations were made using the two cost measures and the four quality measures. Six of the eight correlations were significant at the 0.01 level. This offers very strong evidence that hospitals which provide higher quality services tend to provide them at lower direct costs and take fewer work-hours to provide them, thus rejecting the hypothesis. The implications of this finding are discussed.

674. STOLTE, J. B. **Cost consciousness as a condition of cost containment in hospital.** *Hospital and Health Services Review*, London, 1979, Feb., vol. 75, no. 2, pp. 52-54.

It has been suggested that rapidly rising hospital costs may be due, at least in part, to a lack of cost consciousness on the part of staff and patients. This possible relationship is examined with regard to doctors' attitudes, incentives, choice of treatment, waste, and investment. The main conclusions are: (i) all costs have to be taken into consideration, not just the financial consequences of decisions—the social costs are at least as important; (ii) reintroduction of the alien element of secondary financial consequences to be weighed in medical decision-making is against the real interests of the patient; (iii) the hospital manager should set an example by showing awareness of cost consequences with every pertinent decision; and (iv) the fact that the modern hospital is a very young and rather special organization that is steadily learning should be appreciated. Possible methods of increasing the cost consciousness of staff and patients are suggested.

675. KLIMKE, W. and REPPEL, K. Effizienzverbesserung und Kostensenkung im Krankenhaus. **[Improving efficiency and reducing costs in hospitals.]** *Krankenhaus Umschau*, Kulmbach, 1978, Oct., vol. 47, no. 10, pp. 725-728.

The proposal put forward here is the setting up of a special committee (or the expansion and extension of an existing committee) with the aim of improving efficiency and reducing costs. This committee should be chaired by the chief administrator and the membership should include department heads, representatives of the technical staff and, with advantage, an outside hospital consultant. This committee should meet six to eight times a year. Problem areas are discussed and solutions arrived at. As examples of three problem areas personnel, supply and energy matters are discussed and the particular weak points of each listed. Information and experiences from other hospitals should be sought for comparison.

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract Nos. 673, 755

676. HANCOCK, W. M. and others. **Parameters affecting hospital occupancy and implications for facility sizing.** *Health Services Research*, Chicago, 1978, vol. 13, no. 3, pp. 276-289.

A simulation-based analysis is presented of the effects on hospital bed occupancy of the number of beds in the facility, the percentage of patients who are emergencies, the percentage of elective patients who are scheduled, and the average lengths of stay of emergency and elective patients. A practical method is presented for estimating the optimum size of a short-stay hospital on the basis of expected demand. The use of the results in planning is discussed.

APPOINTMENT SYSTEMS, WAITING LISTS

677. YATES, J. M. **In-patient waiting list statistics: handle with care.** (Occasional Paper No. 16) Birmingham, University of Birmingham Health Services Management Centre, 1978, [i], 20pp.

The failure of the National Health Service to cope with waiting lists is widely criticized while accepting that an unacceptable waiting time does exist, this paper attempts to modify this criticism by recognizing the hospital service's increasing workload, and by examining the weaknesses and inaccuracies of present ways of measuring waiting lists. Alternative ways of collecting waiting list statistics are examined and their advantages and disadvantages noted. Various methods of reducing waiting time which have been tried in practice are outlined. A four page bibliography is appended.

OFFICE MANAGEMENT AND METHODS

678. AMBER, R. **Automated system upgrades personnel and payroll records.** *Hospitals*, Chicago, 1978, Nov. 1, vol. 52, no. 21, pp. 117-118, 120, 122.

Following a study of existing procedures, St. Joseph's Hospital, Providence, R.I.,

has implemented a computer-based system in two phases: personnel, and payroll/time-recording. In the first phase, personnel files on all staff were entered into the computer through cathode ray tubes installed in the personnel department. The payroll/time-recording phase produces weekly time sheets, attendance records, itemized weekly pay slips and other special reports. The system has reduced the time, labour, space, errors and costs associated with producing and restoring these staff records.

ELECTRONIC DATA PROCESSING

See Abstract Nos. 678, 681, 696, 742, 754

LIBRARIES

679. STOLTZENBERG, R. Integrierte Krankenhausbibliothek. **[The integrated hospital library.]** *Krankenhaus Umschau*, Kulmbach, 1978, Oct., vol. 47, no. 10, pp. 739-740, 743-744.

Central hospital libraries are the exception in Western Germany and an integrated library service for medical and other staff and for patients is even rarer. This paper describes such an integrated service which has been set up at the East Bremen Central Hospital (25 psychiatric wards and 12 for neurology, medicine and surgery). The medical library (5,000 volumes and 71 current journals) is supplemented by long-term loans from Bremen University. The staff and patients' library (6,000 volumes and 15 current journals) is supplemented by loans from the Bremen Public Library who also help in other ways. Regular ward visits are made but patients are encouraged to come to the library. Suitable psychiatric patients help in the patients' library and readings and discussion groups are arranged for both patients and staff. Although the two libraries have separate budgets they adjoin and are linked with each other.

680. MESSMER, B. Das Berufsbild des Medizinischen Dokumentationsassistenten (MDA). **[The profession of medical documentation assistant.]** *Veska*, Zurich, 1978, Oct., vol. 42, no. 10, pp. 531-532.

In some of the West German *Länder* medical documentation assistants (or documentalists) are recognized as a non-medical health service profession. Although in some ways similar the duties of these officers are wider than that of medical records officers. There are only two schools in this field in German speaking countries (at the universities of Ulm and Giessen). The training course lasts three years: two years' theory and one year of practice. The syllabus includes: principles of medicine; documentation (including clinical documentation; reprography; librarianship and medical literature); mathematics and statistics; data processing; and organization. Although the training course is aimed at hospital work most of those who have taken the course now work in scientific institutions or in the pharmaceutical industry.

MEDICAL RECORDS

See also Abstract Nos. 743, 752, 753

681. LUSTMAN, F. **Processing medical records: data related problems.** *Medical Informatics*, London, 1978, Dec., vol. 3, no. 4, pp. 317-325.

Although computer processing of medical information has become routine, analysis of large files can still produce poor returns or even no return at all. This paper shows that in the area of medical records the most common reasons for failure are: (i) medical data may be heterogeneous, sometimes inaccurate and often subjective; (ii) the complex process of codification, data capture and validation is rarely carried out as carefully as possible; and (iii) the processing itself can be the cause of some inaccuracy when it does not correspond to the defined objectives for which the data have been collected.

HOSPITAL ACCREDITATION AND SIMILAR SCHEMES

682. JOINT COMMISSION ON ACCREDITATION OF HOSPITALS. **Accreditation manual for hospitals.** February 1978 edition. Chicago, Joint Commission on Accreditation of Hospitals, 1978, xxi, 193pp. $20.00

This revised and comprehensive edition of the Accreditation Manual incorporates the standards published in the 1976 edition of the Manual, the revisions and additions published in three supplements to that edition, and the revisions of the Library Services and Emergency Services sections adopted by the Board of Commissions in December 1978. This edition of the Manual prepared the way for a new publication schedule which began in 1978, in which a new edition of the Manual would be published on 1 August of each year and the new and revised requirements contained within that Manual would become effective for accreditation decision purposes on the succeeding 1 January. The manual includes standards for all aspects of hospital care including, anaesthesia services, infection control, medical records, medical staff, nursing services, pathology and pharmaceutical services, library services, respiratory care and rehabilitation programmes. A glossary and standards for emergency care effective from 1 January 1979 are also included.

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION

See also Abstract Nos. 728, 734

683. RUBIN, B. **Medical malpractice suits can be avoided.** *Hospitals*, Chicago, 1978, Nov. 1, vol. 52, no. 21, pp. 86-88.

As medical treatment has become increasingly complex over the years, patient care has become more and more dehumanized. This feeling of dehumanization can cause patients to file malpractice suits. Ways in which hospital administrators can attempt to remedy the situation are explored. They include: grievance committees; ombudsmen; encouraging staff to become more sensitive to the emotional and psychological problems of patients and to direct complaints to appropriate authorities; multidisciplinary participation in the formulation and implementation of policies; safety committees; and employment of a risk management consultant.

684. MURCHISON, I., NICHOLS, T. S. and HANSON, R. **Legal accountability in the nursing process.** St. Louis, C. V. Mosby, 1978, xiv, 157pp. £6.80

This book is based on the premise that the law can be a positive force in planning and implementing health care. The text opens with a discussion of the nursing process and a proposal for enlarging the process to include legal variables that enter into the formulation of a nursing decision. The first section of the book explores statutory law and the common law of books which control nursing practice; the second section considers the conduct of the individual nurse and emphasizes the reinforcement of nursing practice through an integration of law into the nursing process, and considers the legal liability for negligence. The third section considers the patient and the law governing nursing conduct in situations in which the fundamental rights of those who seek health care demand recognition. The fourth section presents a method of examining legal decisions by determining nursing standards and imposing liability when these standards have not been met. Nursing accountability is reviewed in the light of nursing practice and nurses' working relationships. A select list of references (pp. 152-153) is included.

685. FUCHS, A. Moderne und patientengerechte Pflegesatzregelungen—unverzichtbarer Teil der Krankenhausfinanzierung. **[Modern and patient-oriented regulations on care—an essential point of hospital finance.]** *Krankenhaus*, Stuttgart, 1978, Sept., vol. 70, no. 9, pp. 329-332.

This paper discusses the need for revised regulations on health insurance in Western Germany and its relation to the cost per patient day and on what basis the latter should be calculated. The aim must be to develop procedures whereby: (i) hospitals and health insurance authorities have room for manoeuvre and retain responsibility; (ii) efficient management, coupled with suitable medical care and adequate hospital performance, is achieved; and (iii) proper payment is made for hospital performance and for the services of the staff.

686. OOSTHUIZEN, G. C., SHAPIRO, H. A. and STRAUSS, S. A., editors. **Euthanasia.** (Human Sciences Research Council Publication No. 65) Cape Town & Oxford, Oxford University Press, 1978, [ix], 241pp. £8.95

This volume of papers read at the International Symposium on Euthanasia held in Durban attempts to define the concept of euthanasia. The book is divided into five sections: religion and ethics; sociology and economics; law and criminology; medicine; and psychiatry, psychology and nursing. All aspects of euthanasia are discussed from many different points of view, Western as well as Eastern. The 28 papers offer a blend of secular and religious values that present a universal approach to the problem.

OTHER SPECIAL ASPECTS: CLOSURES, ETC.

687. DOMBROSK, S. and TRACY, R. M. **Impact of hospital closures on nearby hospitals studied.** *Hospitals*, Chicago, 1978, Dec. 1, vol. 52, no. 23, pp. 82-85, 129.

A study was conducted of the effect of the closure of 46 hospitals on other hospitals in the vicinity; 89 affected hospitals were identified. The investigators selected 51

hospitals to form a comparison group. Rates of change in 10 indicators for the affected and comparison hospitals were examined for the period 1970 to 1976: number of beds; admissions; in-patient days; average daily census; occupancy rate; births; surgical operations; emergency department visits; out-patient visits; and full-time equivalent staff. Despite its limitations, the study suggests some conclusions: (i) a hospital closure affects the surrounding hospitals; and (ii) certain factors cause the degree of the impact of hospital closures to vary, including urban or rural setting, bed size and number of other nearby hospitals.

688. FRIEDMAN, E. **The end of the line: when a hospital closes.** *Hospitals*, Chicago, 1978, Dec. 1, vol. 52, no. 23, pp. 69-75.

This paper discusses the experiences of seven hospitals which closed between 1974 and 1977. Four were public hospitals, two were voluntary and one was proprietary. One had 16 beds, another had 803. They were forced to shut down by a variety of factors. Several of the closures were accomplished in a relatively painless fashion; others were difficult and created many problems. The individuals involved in the closures and their aftermath learned many lessons, the chief among which is the critical need for communication among all parties involved.

689. MCNEIL, D. and WILLIAMS, R. **Wide range of causes found for hospital closures.** *Hospitals*, Chicago, 1978, Dec. 1, vol. 52, no. 23, pp. 76-81.

The American Hospital Association conducted a telephone survey of 231 hospitals that closed in the years 1975, 1976 and 1977 to find out the reasons for the closures. Each closure is a unique and individual situation, yet many closed hospitals share common reasons and problems. Of the 26 reasons given for closure, the seven reported most frequently are examined: financial; new facility built; low census; outdated facility; lack of medical staff; policy changes; and mergers. Comparative data for a three-year period are used to show trends in a variety of factors affecting closures. Hospitals in the United States have closed not only because of special problems, but also because a natural progression rendered some hospitals obsolete. There is still a great need for hospitals and their services, but indications are that change is occurring.

690. BOOT, J. M. D. and ZUIDBERG, J. L. M. De sluiting van een zeer klein ziekenhuis als een proces van competitieve uitsluiting. **[The closure of a very small hospital as a process of competitive exclusion.]** *Acta Hospitalia*, Leuven, 1978, vol. 18, no. 3, pp. 285-304.

From 1953 to 1975 the number of small hospitals (less than 125 beds) in the Netherlands fell from 107 to 25. To find out the causes of this decline a case study was carried out of one 109-bed hospital which shared an area of some 120,000 inhabitants with two larger hospitals (246 and 178 beds respectively). The problems the hospital faced were: loss of staff, both in quantity and quality; an old-fashioned building; refusal of a building licence for improvements; and the specialists were able to use better facilities offered in the larger hospitals. There was a consequent loss of patients, which in turn reduced the quality of nurse training and eventually the hospital was not able to meet the required standards. A study of the causes behind these problems revealed that the larger hospitals with better facilities attracted more patients and

staff, and thus put the smaller hospital in an uncompetitive 'market position'. Other features, such as the geographical position and the reluctantly given co-operation from the other hospitals also played a part. In addition, the Government's policy of concentrating medical functions in larger hospitals and generally reducing bed numbers anticipated the closure. This study is limited to only one particular hospital, but the findings are thought to be applicable to similar hospitals, and with further studies other relevant features may emerge.

691. GOTTLIEB, S. R. **Reducing excess hospital capacity is a tough but necessary job.** *Hospitals*, Chicago, Dec. 1, vol. 52, no. 23, pp. 63-68, 97.

Developing and implementing an effective programme to reduce excess hospital capacity is an extremely difficult and complex task. But it is clearly a logical means to contain health care costs and to develop a cost-effective health system. Successful reduction of excess hospital capacity depends upon: (i) an acceptable policy framework; (ii) a defensible set of measurements of capacity; (iii) a cost-effective priority system; (iv) the application of workable methods of bringing about action; (v) identification of practical problems that may frustrate action; (vi) the capability required to resolve the practical problems; and (vii) the creation of an orderly process for carrying out the strategy.

FINANCE AND ACCOUNTING

See Abstract No. 685

FINANCE

692. **Capital financing.** *Topics in Health Care Financing*, Germantown, 1978, vol. 5, no. 1, pp. 1-103.

The health care industry, particularly the hospital segment, is entering the capital markets more frequently and is competing for greater amounts of capital, a scarce resource. This issue examines this phenomenon, explores the evolution of today's highly complex and sophisticated health care financing mechanisms, reviews the current state of the art of health care financing, and looks into the future to determine what impact the current trends in the health care industry will have on the capital financing process. There are chapters on: short- and intermediate-term financing; evaluating financing options; capital market options; bond and mortgage insurance programme; refinancing and refunding options; credit-rating agencies and hospital lenders; legal documentation of hospital finance; and the role of the independent financial feasibility study.

COSTS

See also Abstract Nos. 674, 675, 714, 744

693. CHASSIN, M. R. **The containment of hospital costs: a strategic assessment.** *Medical Care*, Philadelphia, 1978, Oct., vol. 16, no. 10, supplement, pp. 1-55.

After a brief review of the principal explanations for the recent explosion in hospital

costs, this monograph examines the major strategies that have been used in the effort to reduce expenditures on hospital care, analyzes the literature describing their implementation, and compares their relative effectiveness. There are chapters on cost sharing, health maintenance organizations (HMOs), certificate of need, utilization review, and incentive reimbursement. The methods currently available to control costs are inadequate. The most successful methods require further study in order to better understand the reasons for their success. The least successful should be critically reviewed to assess whether and in what altered form they should continue to be applied.

694. FIELDING, J. E. and WEINER, S. **Controlling hospital costs in Massachusetts.** *New England Journal of Medicine*, Boston, 1978, Nov. 30, vol. 299, no. 22, pp. 1249-1251.

Hospital expenditures rose at a rate of 15 per cent per year in Massachusetts between 1973 and 1976, the cost per day being 30 per cent above the national average. A Rate Setting Commission was established to put into operation a hospital cost control scheme, based on the premise that increases in revenue from patients must be based on allowable increases in costs of services given. The scheme budgets two financial years in advance, making adjustments for inflation and approved cost increases caused either by growth in utilization or by additional regulatory requirements. Determination of allowable costs is followed by determining allowable revenue. Hospitals are not permitted to have an excess of patient revenues over the defined allowable costs. Other methods which have been used to reduce the rate of the rise in hospital costs are described. It is too early to say how successful rate setting will be in the longer term, but early results seem hopeful.

SUPPLIES AND STORES

SUPPLIES

695. CALLANQUIN, M. La direction d'un magasin de matériel médico-chirurgical. **[Organization of a medical-surgical supplies centre.]** *Hôpital à Paris*, Paris, 1978, Sept./Oct., no. 47, pp. 415-419.

The management of a medical and surgical supplies centre is discussed in terms of the centre's relationships with its customers, stock management, and the provision of information. There should be frequent consultation between the centre's manager and the unit nursing officers with regard to the ordering of supplies and trials of new articles. The pharmacist is seen as the ideal person to maintain a two-way flow of information between the centre's customers and external suppliers and manufacturers.

696. DAUPHIN, A. and others. Une gestion informatisée du matériel médical. **[Computerized organization of medical supplies.]** *Hôpital à Paris*, Paris, 1978, Sept./Oct., no. 47, pp. 427-434.

Small items for medical and surgical use, disposables, theatre linen, and dressings (350 articles in all) are supplied to each department in the Jean-Verdier Hospital, Paris,

from a central stock. The accounting and issuing procedures are controlled by computer. This ensures that information on quantities ordered and their costs is readily available, that the demand for separate items can be monitored, and that consumption can be analyzed by type of tender, by budget, by supplier, and by sterilization procedure, etc. The articles are standardized, selected originally from among all those available in France. Three computer files are required: one for each article, one for each distribution point (of which there are 40), and one for each supplier. The operation of the system is described here in some detail and there are five tables and two figures.

697. ALHOMME, P. Le magasin médical de l'hôpital Saint-Louis en 1978. **[The medical supplies centre of St. Louis Hospital in 1978.]** *Hôpital à Paris*, Paris, 1978, Sept./Oct., no. 47, pp. 403-411.

The centre for disposables and for small items for medical use was established in the Department of Anaesthesiology in 1972 and was originally intended to cater only for the needs of that department. It now serves the whole hospital, supplying standardized articles twice a week to each department, and carrying enough stock to cope with prolonged delays in deliveries from external suppliers. The organization of the centre and its catalogue, order forms, and files are described, and so are the procedures for emergency ordering, sterility checks, stock management, and charges. The direct involvement of medical staff in the running of the centre is considered to be a great advantage. Some details are given of the quantities of the various items passing through the centre: disposables account for 65 per cent of all stock and the surgical departments use 60 per cent of all stock. Twelve figures accompany the article.

PURCHASING

See Abstract No. 697

STORES

698. BANISTER, R. **The supply function: stock control.** *Hospital Equipment & Supplies*, London, 1978, Sept., vol. 24, no. 9, pp. 58, 60-61; Oct., vol. 24, no. 10, p. 72; Nov., vol. 24, no. 11, p. 28.

This paper outlines the basic theory of stores control including: decisions on range of stock; ordering by the ABC system; re-ordering; safety stocks; and practical stock control.

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

699. HORTON, A. R. **Is the hospital a healthy environment? Food service under stress.** *Royal Society of Health Journal*, London, 1978, Oct., vol. 98, no. 5, pp. 201-203.

The aim of catering management in all types of hospital is to provide an acceptable service to many kinds of people, both well and ill. There is a shortage of both catering

managers and dietitians in the National Health Service. The cost of catering services has been contained by the work of the Food Purchasing Advisory Group and the prevention of wastage of food. Despite clean food legislation, a few outbreaks of food poisoning in hospitals do occur, owing to contaminated supplies or the carelessness of catering staff. Although the Food Hygiene Regulations and the Health and Safety at Work Act stipulate a high standard of food service sanitation, a self-regulating system within the hospital and appraisal by an independent body, would help to ensure the maintenance of a healthy environment for staff and patients alike.

KITCHENS

700. KING, P. **Saving energy in the kitchen.** *Hospital Equipment & Supplies*, London, 1978, Nov., vol. 24, no. 11, pp. 33-34.

Research by the Department of the Environment has shown that there is much wastage of energy in kitchens used for large scale catering. Electronic sensors showed that many appliances were left on when not actually needed to cook meals. The amount of fuel used can be reduced by using a number of improved catering appliances. These include: (i) a thermostat and boost control incorporated in a bulk water boiler; and (ii) a range of ovens with burners fitted with flame failure controls, operating in conjunction with pan sensing devices which interrupt the gas supply when the cooking container is removed. The range is also fitted with a timing device to cut off the burner after a period of two hours. Equipment manufacturers are also investigating rapid heat-up and high out-put radiant emitters and hospital caterers should consider these new developments in the interest of saving fuel.

LAUNDRIES AND LINEN SERVICE

LAUNDRIES

See also Abstract No. 718

701. DION, R., GARIÉPY, J. G. and LABBÉ, M. H. La buanderie centrale de Montréal. **[Montreal central laundry.]** *Administration hospitalière et sociale*, Montreal, 1978, Sept./Oct., vol. 24, no. 5, pp. 40-43, 46.

The construction of the central laundry started in October 1977. The laundering system employed is highly mechanized, automated, and sophisticated. There are three wash tunnels which together wash 10,500 pounds of linen an hour, three membrane wringers, seven driers, six roller ironing machines, four feeders for these machines, four automatic folders, and a tunnel system for finishing uniforms. The laundry will be the largest in North America and initially it will serve 11 hospitals. This short account includes three photographs, one of the exterior of the building, one of the wash tunnels, and one of a roller ironing machine.

702. TOWNER, J. La buanderie communautaire de Québec. **[Quebec community laundry.]** *Administration hospitalière et sociale*, Montreal, 1978, Sept./Oct., vol. 24, no. 5, pp. 30-36.

A description is given of the Quebec Community Hospital Services' Joint Laundry, a Ministry of Health pilot project dating from 1966. The laundry serves five hospitals and is an industrial system providing for the upkeep and distribution of linen. The amount of laundry processed has risen from four and a half million pounds in 1967 to 19½ million pounds in 1977. The project has achieved considerable economies, in particular because linen and uniforms are standardized and a group purchasing system is in operation. The quality of the laundering process has improved and new textiles are constantly being tested. The management's objectives for the future include the establishment of safety standards, a reduction in energy consumption, the replacement of old machinery, and expansion. Three tables and a graph illustrate the scale of the laundry's operations and the costs.

703. DUGUAY, A. Le rôle de la buanderie hospitalière dans la qualité des soins. **[The role of the hospital laundry in maintaining the quality of care.]** *Administration hospitalière et sociale*, Montreal, 1978, Sept./Oct., vol. 24, no. 5, pp. 8-9.

The author summarizes the laundry's contribution to quality of care in terms of hygiene, asepsis, patient comfort, staff protection, and economy. He discusses details such as the sorting of dirty linen in the ward and laundry, the introduction of new textiles, ironing and folding, thefts of linen, and the quantities of linen required per bed.

704. LE DOARÉ, M. Réalisation et gestion d'une blanchisserie centrale. **[Establishment and organization of a central laundry.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Dec., vol. 33, no. 399, pp. 60-65.

When four hospitals in Brittany combined to establish a central laundry in the grounds of one establishment, the Psychiatric Hospital at Charcot, they had to form themselves into an inter-hospital network; the bureaucratic complications which this entailed are described at some length. The laundry was finally constructed on the basis of a financed turnkey agreement and will become the property of the network in 15 years' time. It is of industrialized construction and in the selection of building materials the main considerations were insulation and ease of maintenance. The laundry can process 6,400 kg of linen in a seven-hour working day. The most modern feature is the automatic washing 'chain', a series of 13 compartments in which 20 kg batches of laundry are washed at a time. The laundry employs a total staff of 54, including seven seamstresses for repair work.

705. KERR, M. I. **Increase control of operations to reduce linen costs.** *Hospitals*, Chicago, 1978, Dec. 1, vol. 52, no. 23, pp. 114, 118-119, 128.

Linen costs can be most effectively reduced by devising and imposing controls on linen service operations rather than by merely trying to control linen usage. Such controls include: use of work load timetables for the laundry department; an itemized

charge system for each linen-using department; standards of daily usage; and immediate investigation of deviations from standards. Introduction of such controls at Greater Baltimore Medical Center has reduced the average number of pounds of linen per patient day from 16.57 to 16.13 in one year. The number of 'misplaced linens' was reduced from 10,199 pounds to 762 pounds in less than six months.

706. Linnenvoorziening in Dr. Daniël den Hoed Kliniek Rotterdam: hygiënisch systeem rondom verontreinigd wasgoed verkleint kans op kruisinfectie: aparte regeling voor artikelen met grote omloopsnelheid. **[Linen supplies in the Dr. Daniël den Hoed Hospital, Rotterdam: the danger of cross-infection is reduced by the use of an hygienic laundering system with separate treatment for most used articles.]** *Voeding- en Huishoudgids*, Amsterdam, 1978, Nov. 13, vol. 45, no. 552, pp. 526-528.

The linen and laundry service of the 200-bed hospital is provided by an outside firm. Soiled linen is placed into plastic bags in the departments, where they are closed and not opened until they reach the laundry. This reduces the danger of cross-infection through sorting and packing. The bags, capable of holding 10 kg, are carried on three-wheeled round trolleys with a ring over which the bag is attached. Bags are collected by the internal transport system and stored in a special area awaiting collection by the laundry van. The service is divided into a 'large round' for articles in frequent use with delivery to the departments three times a week, and a 'small round' for articles in less frequent use with delivery once a week. Each department has its own specific standard supply pack. Staff clothing, at present handled by the hospital linen service, is labelled individually for each person. Clean linen, ready packed in plastic covered container trolleys, is delivered daily to the hospital and the soiled linen collected. Infected linen, in red bags, is sent to the municipal disinfection service. Clothing is placed and washed on hangers. The laundry bags are weighed, sorted and tipped into a large Voss Archimedia washing machine. The washing process is largely automated; and the number of garments is checked by computer. Repairs are carried out in the linen room of the laundry. The paper includes 12 pictures.

HOSPITAL LINEN AND TEXTILES

707. LIDWELL, O. M. and MACKINTOSH, C. A. **The evaluation of fabrics in relation to their use as protective garments in nursing and surgery. I. Physical measurements and bench tests.** *Journal of Hygiene*, Cambridge, 1978, Dec., vol. 81, no. 3, pp. 433-452.

Eleven fabrics representing a wide range of yarns and weaves were examined at the Central Public Health Laboratory to assess the ability of each to resist penetration by particles, such as skin scales, which might transmit micro-organisms. The fabrics were examined microscopically and the number, size and shape of pores penetrating through the material were estimated. The penetration of test dusts through the fabric were assessed by a number of tests, including: (i) bubble pressure test; (ii) air permeability test; and (iii) airborne particle penetration test. The relative merits of the fabrics were similar, irrespective of what test or measurement was carried out, but a number of exceptions reflected the peculiarities of a particular test or fabric.

708. LIDWELL, O. M., MACKINTOSH, C. A. and TOWERS, A. G. **The evaluation of fabrics in relation to their use as protective garments in nursing and surgery. II. Dispersal of skin organisms in a test chamber.** *Journal of Hygiene*, Cambridge, 1978, Dec., vol. 81, no. 3, pp. 453-469.

The 11 fabrics subjected to various tests for permeability at the Central Public Health Laboratory were made up into trousers. These were worn by volunteers for a standardized length of time in a test chamber operated within a clean-air room. With careful attention to sealing at ankles and wrists, penetrations as low as 0.3 per cent could be estimated. When values were compared with the results of measurements and bench tests, the results were very similar for a group of five woven cotton-terylene fabrics, but varied widely for other materials. The non-woven fabric 450 reduced dispersal significantly more in the test chamber than in the bench tests. It is not easy to say which tests are most valuable in assessing a fabric for use in protective clothing, but measuring the size of the largest pores which penetrate the fabric is a simple test providing a reasonable guide.

709. GABRIEL, S. **Reduced fire hazard fabrics.** *Hospital Equipment & Supplies*, London, 1978, Nov., vol. 24, no. 12, pp. 86, 87; Dec., vol. 24, no. 12, pp. 19-20, 46-47.

With such a large hospital population in close proximity to so many textiles, plus sources of ignition, it is inevitable that the three will come together, each day, somewhere in the National Health Service, to cause a fire despite the variety of devices, appliances, safety precautions and legislation. Reduced fire hazard fabrics are the first line of defence in preventing ignition, thereafter it will rest entirely on the laundry to ensure that textiles do not become a hazard during their hospital life. Details are given of: chemical system reduced-hazard fibres; inherent reduced fire hazard fibres; and flammability modification.

HOSPITAL DOMESTIC MANAGEMENT

710. WEHRMÜLLER, T. Analyse des Berufes der Hausbeamtin. **[An analysis of the profession of domestic superintendent.]** *Veska*, Zurich, 1978, Oct., vol. 42, no. 10, pp. 525-528.

This paper presents the findings of an inquiry into the work of domestic superintendents in Swiss hospitals. A total of 423 questionnaires were sent out, of which 57.9 per cent were returned. In 61 cases no domestic superintendent was employed. Details are given on changes in the duties of domestic superintendents, training of staff, numbers of staff, purchasing and storage of materials, the relative importance of the various duties, and on administrative work. Questions were put both to hospital administrators and to domestic superintendents as to how they saw future developments in 20 different areas of work. There was surprisingly very little difference in the views expressed.

DOMESTIC WORK

711. Centraal afzuigsysteem voor stof en vocht: schoonmaakonderhoud met minder, mensen, kosten en herrie: grote voordelen nog niet voldoende bekend. **[Central extraction system for dust and fluids: cleaning equipment maintenance with fewer people, less cost and noise: the advantages are not yet fully known.]** *Voeding- en Huishoudgids*, Amsterdam, 1978, Dec. 11, vol. 45, no. 553, pp. 572-574.

This system is at present in use at the Royal Dutch Aircraft Firm 'Fokker NV' and it is now being recommended for hospitals. The advantages are: no loss of time in emptying bags of conventional vacuum cleaners; strong and constant action; little noise; direct and clean disposal of dust and dirty water; and no recirculation of dusty air. The system cannot take large items, such as empty plastic cups, etc. It is operated from a central suction unit which has a syphon in which dust and water are mixed, a dirty water reservoir, and direct connections into the waste pipes. Throughout the building contact points are placed to which 38 mm. diameter tubes of various lengths can be attached for cleaning. At Fokker NV 180 such points are distributed over six storeys with a total floor area of 120,000 m^2. The points are on walls (20) and floors (160) and available in different designs, one of which is a silent version. The suction capacity remains at maximum up to the use of four points simultaneously. Though rather expensive to install, installation and maintenance costs are offset by a saving of eight to 15 per cent on labour. The paper includes four diagrams with technical descriptions and six pictures.

712. VEIP, B. L. R. Kritische beschouwing over schoonmaakonderhoud: iedereen beschouwt zichzelf vanzelfsprekend als deskundig wanneer het om reinheid gaat. **[A critical examination of cleaning equipment maintenance: everyone considers himself an expert in matters of hygiene as a matter of course.]** *Voeding- en Huishoudgids*, Amsterdam, 1978, Dec. 11, vol. 45, no. 553, pp. 570-571, 574-575.

The two important aspects of efficient cleaning are frequency and quality. The author doubts whether the present cleaning routines of once every 24 hours are sufficient. He would like to see hygiene tests and standard criteria laid down but recognizes budgetary restrictions and disagreements among bacteriologists on the cleaning of large surface areas and its connection with cross infection. The quality of cleaning techniques is still a controversial subject. Wet cleaning should only be carried out when necessary, in confined areas to prevent further spread, and always be followed by action to remove all fluid. This prevents dust, with its micro-organisms, remaining behind after the fluid has evaporated. Disinfection of hospital floors is mostly ineffective because of immediate reinfection, but when it takes place it should be done after the cleaning and not with disinfectant in the cleaning water. The dirty water compartments of any cleaning apparatus should carry a heavy dose of disinfectant, be emptied after use and all cleaning materials cleaned after use. Each department should have its own cleaning equipment. Floors, which count for 60 per cent of all cleaning maintenance, should have no seams or cracks, should be washable and not be affected by cleaning agents. Waxing of lino, PVC and other coverings to form a seal, is still a controversial issue. The paper includes one picture and a drawing.

HYGIENE IN THE HOSPITAL

See Abstract No. 699

HOSPITAL INFECTIONS

See also Abstract Nos. 706, 718

713. ASPINALL, M. J. **Scoring against nosocomial infections.** *American Journal of Nursing*, New York, 1978, Oct., vol. 78, no. 10, pp. 1704-1707.

At the Long Beach Veterans Administration Hospital, California, staff from many departments have made efforts to control nosocomial infections by following guidelines laid down by the infection control committee. Measures to reduce post-operative infection include: (i) shortening the pre-operative stay; (ii) careful pre-operative nutrition; (iii) supplying incisions and suture lines with blood; (iv) earlier use of antibiotics; and (v) using individually wrapped dressings and controlling drainage from surgical wounds. The committee has also made several modifications in catheterization and intravenous therapy procedures and these are described. In two years the rate of nosocomial infection fell from 9.39 per cent of the same two-month intake of patients to 3.86 per cent. Besides improving patient welfare, the reduction in infection has produced a significant drop in hospital expenses.

714. SPENGLER, R. F. and GREENOUGH, W. B. **Hospital costs and mortality attributed to nosocomial bacteremias.** *Journal of the American Medical Association*, Chicago, 1978, Nov. 24, vol. 240, no. 22, pp. 2455-2458.

Patients with hospital-acquired bacteriological infections were matched with a group of uninfected control patients at the Johns Hopkins Hospital, Baltimore, to determine the excess hospital costs and mortality attributable to such infections. Mortality was 14 times greater in the infected group than in members of the control group with the same primary diagnosis, and the hospital stay was 14 days longer. An itemized cost analysis, based on 81 pairs of infected and control patients, showed an excess of about $3,600 in direct hospital costs for each patient with an infection. It was estimated that only about 24 per cent of the total extra costs might have been prevented by tighter infection control measures. Carefully conducted studies are needed to determine which infection control procedures are most effective in reducing infections and hospital expenses.

715. PARKER, M. T. **The hospital environment as a source of septic infection.** *Royal Society of Health Journal*, London, 1978, Oct., vol. 98, no. 5, pp. 203-209.

This article discusses the importance of controlling environmental contamination to prevent infection, particularly in relation to hospital-acquired sepsis. Microbial strains in hospital are often antibiotic resistant and patients tend to have a lowered immunity. Sources of environmental infection are created by multiplication of bacteria at an environmental site, or by the introduction into the hospital of spores of non-human origin. Varying types of bacteria can survive on both dry and wet surfaces for considerable periods of time. Organisms may spread to the patient by: (i) transport

through the air; (ii) direct implantation; (iii) surface contamination; (iv) ingestion; and (v) inhalation. The following are some of the main considerations for controlling environmental contamination: (i) ventilation and aerial segregation in operating theatres and isolation rooms; (ii) sterilization, disinfection and cleaning by suitable means for different items; and (iii) bacteriological monitoring of the environment.

716. KUNIN, C. M. and EDELMAN, R., editors. **The impact of infections on medical care in the United States: problems and priorities for future research.** *Annals of Internal Medicine*, Philadelphia, 1978, vol. 89, no. 5, part 2, pp. 737-866.

This feature presents the 46 papers given at a symposium held at the Clinical Center, National Institutes of Health. The papers are arranged in eight groups: frequency of infections—effect on health care; prevention of infections; the laboratory, the physician, and diagnosis of infection; problems in the use of antibiotics; manpower needs and research training; public policy; problems that need clinical investigation; and comments.

717. HALL, C. B. and others. **Control of nosocomial respiratory syncytial viral infections.** *Pediatrics*, Evanston, 1978, Nov., vol. 62, no. 5, pp. 728-732.

Methods of controlling the spread of respiratory syncytial virus (RSV) on an infants' ward during an outbreak in the community were evaluated. Methods of control included: (i) isolation of infected and high-risk infants; (ii) handwashing; (iii) the use of gowns; (iv) limiting the number of staff in contact with each infected infant; and (v) limiting visiting. All infants and staff were tested for respiratory illness every three or four days. During the two-month study period, 123 infants were admitted, 36 of whom already had RSV infections. Of the remaining 87 infants, eight acquired RSV disease. Of the 43 staff members, 56 per cent became infected and 82 per cent were symptomatic. Comparisons with an earlier study revealed that the procedures employed decreased the spread of RSV to infants, but not to staff, who continued to become infected through close contact with the infants. More adequate mechanical means of preventing hospital-acquired RSV infections are needed.

PREVENTION AND CONTROL

See also Abstract Nos. 707, 708, 712, 719

718. MORIN, G. L'asepsie dans le domaine de la buanderie. **[Infection in the laundry services.]** *Administration hospitalière et sociale*, Montreal, 1978, Sept./Oct., vol. 24, no. 5, pp. 20-22.

One patient in 20 acquires an infection while in hospital. The micro-organisms responsible for this infection are often spread by the hospital linen. The author recommends that laundry staff should wash their hands after touching soiled linen, wear a uniform which they remove before leaving the laundry, never eat, drink, or smoke in the work area, and not return to work after sick leave without a health check. Soiled linen should be placed in a sack in the patient's room, linen soiled by pus should be put in a sack inside a second sack and put directly into the washing machine; the chutes for linen should have a negative pressure of 0.4 lb water; disposable sacks should

be incinerated immediately, and linen trucks washed every day. Clean linen should always be kept separate from soiled linen, and wrapped in waterproof covering. Finally, quality controls should be carried out periodically; a method using Rodac boxes is described in detail.

719. CROW, S. **Cleaning, disinfecting procedures help control spread of infection.** *Hospitals*, Chicago, 1978, Dec. 1, vol. 52, no. 23, pp. 111-113.

Fibreoptic bronchoscopy has proved invaluable as a diagnostic tool, but several studies have connected the use of endoscopy with high infection rates, complications, and even death. The spread of infection by these instruments can be controlled if hospital staff are taught clear, specific procedures for the cleaning, disinfection and/or sterilization of these instruments. Infection control authorities recommend that the instruments be sterilized between each patient use, but many hospitals find this to be an impractical practice. As an alternative, fibreoptic bronchoscopes can be disinfected with alkaline gluteraldehyde, a process that takes approximately 10 minutes.

HYGIENE IN THE OPERATING THEATRE

720. MCINTYRE, J. W. R., PURDHAM, J. T. and HOSEIN, H. R. **An assessment of operating room environment air contamination with nitrous oxide and halothane and some scavenging methods.** *Canadian Anaesthetists' Society Journal*, Toronto, 1978, Nov., vol. 25, no. 6, pp. 499-505.

This study was designed to assess operating theatre contamination with nitrous oxide and halothane when nitrous oxide three 1/min. and oxygen two 1/min. containing halothane one per cent were passed into a semi-closed circle absorber system from which the patients' lungs were ventilated with an Ohio ventimeter through a cuffed trachael tube, with the exhaled gas vented to the floor. The normal room ventilation did not consistently maintain levels below the suggested amounts, with the nitrous oxide 25 ppm and halothane two ppm. Careful daily checks for and correction of high and low pressure leaks combined with the use of a Foregger scavenging device (7-351-005) and continuous wall vacuum accepting approximately 22 1/m enabled geometric mean values below the suggested levels to be achieved. The Protection Filter Forreger 7-365-001 was only effective in removing halothane and only if the plastic holder provided was radically modified. Attention is drawn to the numerous factors influencing the magnitude of contamination, aspects of controlling it, and the need to cope with the problem of dealing with scavenged gases and vapours.

STERILIZATION

See also Abstract No. 719

721. HOUSLOP, P. L. **The training of C.S.S.D. managers.** *ASSA Journal*, Matlock, 1978, Nov., vol. 7, no. 2, pp. 3-4, 6.

In identifying the need for training for Central Sterile Supply Department managers, two groups of people are considered: the managers at present in posts and newly-

appointed managers. Training is required in both management and technical skills. As most managers will have received some kind of management training, the greater need is likely to be in the area of technical subjects. While no great depth of knowledge is required, an understanding of the materials and manufacturing processes for surgical instruments will lead to far greater awareness of the reasons for problems occurring with them. A good deal of training will have to be done on the job, but it will have to be well prepared, documented and nationally co-ordinated. There is a need for training literature, and any training programme must be carefully monitored.

AIR HYGIENE

See also Abstract Nos. 707, 708, 720

722. MACKINTOSH, C. A. and others. **The dimensions of skin fragments dispersed into the air during activity.** *Journal of Hygiene*, Cambridge, 1978, Dec., vol. 81, no. 3, pp. 471-479.

There was a 1,000-fold difference between the highest and the lowest mean rate of dispersal of bacteria-carrying skin particles during exercise among a group of three male and three female subjects. Differences in the number of skin fragments dispersed and in the proportion of those carrying bacteria were almost equally responsible for this. Variations in the size of the skin particles dispersed were not related to the dispersal rates, but a higher rate of dispersal did indicate a higher degree of skin colonization. Although smaller skin fragments are less likely to carry bacteria than larger ones, it is still possible for a significant number of bacteria-carrying particles to pass through even the more tightly woven fabrics.

DISPOSAL OF WASTE

723. MARRIOTT, J. **Hospital solid wastes.** *Royal Society of Health Journal*, London, 1978, Oct., vol. 98, no. 5, pp. 209-215.

This article discusses in detail the disposal of solid wastes from hospitals. Hazardous waste must be separated from other wastes and subjected to special storage, handling, transport and disposal. Methods of solid waste management will vary according to the amount and type of waste produced, which will, in turn, depend upon the type and size of the hospital concerned. Solid waste has to be stored at many points throughout the hospital to await removal and plastic disposable sacks, colour-coded to aid separation, must be provided. Large plastic containers are better when large quantities are involved. The transport of waste between collection and disposal points must be carefully planned to reduce the amount of handling. A number of container handling vehicles are available for transport, but compression loading should not be used for hazardous waste. Either the local authority or the hospital authority may be responsible for waste disposal and various methods, including landfill disposal and incineration, are described.

SAFETY MEASURES

ACCIDENTS GENERALLY

724. STELLMAN, J. M. and others. **The role of the union health and safety committee in evaluating the health hazards of hospital workers: a case study.** *Preventive Medicine*, New York, 1978, Sept., vol. 7, no. 3, pp. 332-337.

The union health and safety committee is an important tool for evaluating and reducing job-related health risks among hospital staff. The experience of one such committee which effectively performed this duty at New York University Medical Center has led to a city-wide survey of working conditions and health status of hospital laboratory workers. Results showed a possible association of hepatitis with some job practices and led to constructive suggestions for improving working conditions and reducing disease risk among hospital staff.

ACCIDENTS IN GAS AND DRUG ADMINISTRATION

See Abstract No. 768

FIRES AND FIRE PREVENTION

See also Abstract No. 709

725. WHITE, D. C. **Recent hospital fires in Scotland—an analysis.** *Hospital and Health Services Review*, London, 1979, Jan., vol. 75, no. 1, pp. 20-23.

A survey of fires in Scottish hospitals in recent years was carried out under the auspices of the South Lothian District of the Lothian Health Board. A standard form established for each fire, its location, its supposed source of ignition and the material first ignited. About a quarter of all fires occurred in ward areas, kitchens being the second commonest location and cloakrooms and lounges the third. Just over 30 fires occurred in stores and 18 in laundries. Over a third of the fires were probably started by cigarettes. Possible solutions include: (i) waste disposal systems which protect their contents from ignition; (ii) smoke detectors; and (iii) confining smoking to certain areas of the hospital. Fires caused by cookers are usually due to carelessness rather than faulty equipment. Staff need to be especially vigilant in psychiatric hospitals, where wilful fire-raising occurs slightly more often. Waste materials are most often first ignited in fires, followed by insulation and bedding. A standard system of fire reporting in health service premises for national analysis would help in drawing up recommendations.

PLANNING FOR MASS EMERGENCIES

See also Abstract No. 637

726. BANDER, K. W. **Hospital structures guidelines for coping with snowstorms.** *Hospitals*, Chicago, 1978, Nov. 1, vol. 52, no. 21, pp. 123-124, 126, 128, 130.

During the massive snowstorm of 1978, Massachusetts General Hospital, Boston, had to manage for several days with whatever resources were on site and to function

while motor traffic was prohibited except for government authorized emergency vehicles. This paper presents a plan that could be adapted for use by any hospital in such circumstances. When a potential snow emergency is reported, a senior administrative official on site should assemble the available top management staff to initiate an assessment of resources actually present. This group must meet at four- to eight-hour intervals in order to facilitate ongoing planning and to co-ordinate the flow of information to staff and patients. Plans should cover: establishment of clear channels of communication; re-allocation of staff; provision of up-to-date information to staff, patients and relatives; provision of sleeping accommodation for staff; transport co-ordination; catering, housekeeping and maintenance services; power systems; operating theatre scheduling; and problems to be dealt with in the aftermath.

THE PATIENT

WELFARE OF THE PATIENT

See also Abstract Nos. 663, 763, 767

727. MACILWAINE, H. **Breaking through the communication barrier.** *Nursing Mirror*, Sutton, 1978, Dec. 7, vol. 147, no. 23, pp. 19-21.

This article stresses the need for nurses to establish relationships with their patients in order to allay their fears. This relationship is not just a means of transmitting information, but of helping patients adjust to changes in their lives caused by major surgery or chronic problems. In the United States, a role for nurses as counsellors has been developed. These 'liaison' nurses are generally psychiatric nurses with a special interest in the emotional problems of the physically ill. They also help their fellow nurses understand the problems facing their patients, especially 'difficult' patients and the terminally ill. With regard to this country, the author considers that it is important for all nurses to receive adequate training in communication and counselling rather than aiming to create a special group concerned solely with emotional problems.

728. HOGAN, N. S. **Patient's rights: voluntary or mandatory.** *Hospitals*, Chicago, 1978, Nov. 16, vol. 52, no. 22, pp. 111, 113-114, 116.

Since the American Hospital Association's statement *A patient's bill of rights* was issued in 1972, there has been a proliferation of bills of rights for various groups. The indifference of health care providers to patients as human beings and individuals has led the public to seek justice through the courts and through legislation. Steps taken by states to introduce such legislation are reviewed. The need to consider patients' responsibilities as well as rights is discussed. Hospitals need to develop statements of patients' rights to avoid the pitfalls of further government regulation.

VOLUNTARY SERVICE, VOLUNTARY WORKERS

729. DUNCAN, S. **Volunteers and professionals—a creative partnership?** *Royal Society of Health Journal*, London, 1978, Oct., vol. 98, no. 5, pp. 219-222.

The author outlines the involvement of volunteers in the health service from before 1948 to the present day. Since 1963 voluntary service co-ordinators have been employed in an increasing number of hospitals. At the re-organization of the National Health Service in 1974, volunteers became less involved with hospital management and more concerned to represent community interests through community health councils. The involvement of volunteers in the health service is the best way of educating the public about its problems and issues. The main contribution of volunteers is made directly to the patient and offers opportunities to everyone, whatever their age or skills. The aim of the volunteer is to complement the professional service, with a possibility of becoming a lay member of the health care team.

HOSPITAL SOCIAL WORK

730. **The roles of chaplains in community mental health.** *Hospital & Community Psychiatry*, Washington, D.C. 1978, Dec., vol. 29, no. 12, pp. 797-800.

Four chaplains working in various types of community mental health centres describe their roles with patients, the staff of the centre and the local community. Chaplains have a direct part to play in patient care, by helping patients with both spiritual and practical problems and by helping staff to understand the supportive role played by religion in a patient's life. They can also work with psychiatrists in dealing with specific problems, such as grief and loss. At one centre, staff hold seminars to help clergy understand various psychopathologies and the treatment given. The chaplain can do much to make a mental health centre acceptable to its local community and can speak to the staff on behalf of the community, particularly in rural areas.

TRANSPORT OF PATIENTS

731. STONE, V. and DAVIES, F. **Finding the way forward.** *Health and Social Service Journal*, London, 1979, Jan. 25, vol. 89, no. 4625, pp. 61-63.

Following an organization and methods study, a transport manager was appointed for the East Dorset Health District in 1975. Previously the district's transport system had been completely decentralized, with considerable use of local contractors and taxi firms. Over the next two years contracted transport was phased out and a regular mail service between units in the urban part of the district was introduced; as a result considerable savings were made. A four-month work study exercise in 1977 suggested three main areas of change which could equally apply to any district transport service: (i) the organization of the service, particularly the scheduling of journeys; (ii) the management of the service, particularly the authorization of journeys; and (iii) the type of vehicles used, which should allow for flexibility in use.

TERMINAL CARE

See also Abstract No. 686

732. HAMMEL, M. I. and TRINCA, C. E. **Patient needs come first at Hillhaven Hospice: pharmacy services essential for pain control.** *American Pharmacy*, Washington, D.C. 1978, Nov., vol. NS18, no. 12, pp. 15-17.

The development of the hospice movement is outlined. Hillhaven Hospice, Tucson, Ariz., jointly funded by Hillhaven Foundation and the National Cancer Institute, offers a complete programme of care to terminal cancer patients. The pharmacist is an integral member of the interdisciplinary team which reviews applications, develops care plans and provides care. The programme of care is described briefly, together with the pharmacist's role, particularly in pain control.

HOSPITAL CARE

See also Abstract Nos. 626, 631, 673, 693, 703, 716, 745, 753, 756, 766, 776

733. STEELE, S. and MORTON, D. **A consumer based study to improve the treatment of patients in hospital.** (King's Fund Project Paper No. 20) London, King's Fund Centre, 1978, [i], 35pp.

This report is of a study to find out the views of patients about their treatment in hospital in order to identify the deficiencies in communication between staff and patients or relatives, to inform medical and nursing staff of the results and to seek ways of improving the situation. Topics covered include: staff attitudes and opinions; teaching, especially related to ward rounds; difficult patients; and problems related to poor administration. There seems to be a real need for a change in attitude by many health care professionals towards patients, and the second part of the study discusses ways of presenting the importance of staff-patient communication to doctors, nurses and medical students.

734. ROSEN, H. M. **PSRO: conflict in regulatory goals.** *Hospital and Health Services Administration*, Chicago, 1978, vol. 23, no. 4, pp. 48-64.

The Professional Standards Review Organization (PSRO) programme is under attack from two sides: government agencies are concerned with cost containment; and physicians are concerned with quality assurance. Examination of criticisms of PSROs leads to the conclusion that the programme's emphasis should be changed from the classic regulatory procedures of screening for abuse and misuse towards justification of effectiveness. By reviewing the impact of services on health status, PSROs would review quality while considering cost containment. The conflicting goals of the PSRO programme would then be reconciled, allowing it to contribute constructively to a crucial policy dialogue.

DISCHARGE OF PATIENTS

735. CASS, S. **The effects of the referral process on hospital in-patients.** *Journal of Advanced Nursing*, Oxford, 1978, Nov., vol. 3, no. 6, pp. 563-569.

Decisions relating to the preparation of patients for discharge can take place at any time after admission to hospital. In an attempt to understand how decisions are made

and on what basis, general medical patients admitted to acute units of general hospitals were studied. Patients were followed from the day of admission until discharge and were then visited at home seven to 10 days after discharge. Particular emphasis was placed on the study of referrals, especially to the social work, occupational therapy and physiotherapy departments and the community nursing, health visiting and social services. It would appear from the study that even with the introduction of a health visitor or community nurse liaison officer, the hoped for improvements did not take place and the referral of patients remains unpredictable. None of the hospitals implemented the 'nursing process' in its fullest sense with documented assessment on admission to hospital of the patient's social circumstances. However, a number of the ward sisters maintained that assessments of patient's home and social circumstances were made by them on admission to hospital, especially of those patients in the 'elderly, living alone' category.

736. SCHLAUGH, R. W., REICH, P. and KELLY, M. J. **Leaving the hospital against medical advice.** *New England Journal of Medicine*, Boston, Mass., 1979, Jan. 4, vol. 300, no. 1, pp. 22-24.

The records of 171 patients discharged against advice from the Peter Bent Brigham Hospital, Boston, over a two-year period were studied. Patients tended to be young, male, non-white and from a low income group. The majority of discharges occurred during the first five days of the hospital stay and only 42 per cent were first admissions. At the time of discharge 109 patients displayed anxiety, but only 16 expressed anger. In 147 cases patients signed the official form to leave against advice and on only 47 forms did a doctor say discharge was unsafe. Most of the patients returned for out-patient care and none were critically ill, but in every case premature discharge involved some degree of risk. Attention should be paid to early diagnosis and treatment for the establishment of a good staff-patient relationship in order to prevent a repetitive pattern of self-discharge among a certain group of patients.

HOME CARE, AFTER-CARE

See Abstract No. 774

SPECIAL DEPARTMENTS

WARDS

See Abstract No. 631

OPERATING SUITES

737. NATIONAL ASSOCIATION OF THEATRE NURSES, STAFFING AND TRAINING SUB-COMMITTEE. **Guide lines to the total patient care and safe practice in operating theatres: codes of practice.** 2nd edition. [Matlock], National Association of Theatre Nurses, 1978, 34pp. £1.00

These guidelines are designed to provide a basis which individual operating theatres can incorporate in newly formulated or existing procedures and teaching programmes.

They indicate the minimum level below which no standard should fall and are recommended to provide an acceptable standard of safety and total patient care in the operating theatres of Great Britain. Aspects considered in the guidelines include: maintenance of fabrics; safeguards against explosions; identification, storage and administration of drugs; use of equipment; techniques in the operating theatre; maintenance of clinical records; radiation; preservation of specimens; medico-legal aspects; and death in the theatre.

ANAESTHESIA

See also Abstract Nos. 643, 720

738. FORREST, J. B. **The current status of anaesthesia research in Canada.** *Canadian Anaesthetists' Society Journal*, Toronto, 1978, Nov., vol. 25, no. 6, pp. 524-531.

This paper is based on a questionnaire survey of all 16 university departments of anaesthesia in Canada. The results show that only 0.68 per cent of Medical Research Council of Canada funds support anaesthesia compared with 3.29 per cent of the United States National Institutes of General Medical Services funds. Notably 90 per cent of Canadian research funds are held in three departments. Canadian academic anaesthetists spend twice as much time in clinical services as their United States counterparts and there are 46 per cent fewer full-time facility and 64 per cent fewer researchers in Canadian departments than in the United States. A number of recommendations are made for use as the basis for future planning.

739. DECHENE, J.-P. **Anaesthesia for ambulatory surgery.** *Canadian Anaesthetists' Society Journal*, Toronto, 1978, Nov., vol. 25, no. 6, pp. 512-516.

At the Jewish General Hospital, Montreal, a 27-bed special care unit was created to take care of patients scheduled for ambulatory surgery, from the time of their arrival to discharge. An operating theatre in the regular operating suite was reserved for ambulatory surgery and ambulatory patients share recovery facilities with in-patients. This paper reviews problems inherent in the implementation of anaesthesia for ambulatory surgery and relates the hospital's experience with alfathesia and enflurane as general anaesthetic agents for out-patients. It is considered that general anaesthesia using these agents will increase the safety of ambulatory surgery.

PHARMACY

See also Abstract Nos. 695, 732

740. SUMMERFIELD, M. R. and others. **Determining staffing requirements in institutional pharmacy.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1978, Dec., vol. 35, no. 12, pp. 1487-1495.

Industrial engineering study techniques were applied to the work load and staffing patterns of a satellite pharmacy in a large teaching hospital to determine if improvements

could be made. Twenty-one defined activities were observed on 800 occasions during day, evening and night shifts over a three-week period. Work sampling was used to determine the percentage of an employee's day which was devoted to specific activities. In-patient census alone was not a reliable indicator of pharmacy work load. Time spent on variable activities varied amongst the three shifts. Fluctuations in staff requirements per variable activity were shift specific. Observed fixed activities of staff did not vary greatly among shifts and occupied about 24 per cent of total time. The percentage of total time spent in unproductive activities was highest on the night shift, followed by the day and evening shifts, and totalled 17.5 per cent for pharmacists and 23.3 per cent for technicians. A reduction by 10 per cent in unproductive time would result in man-hours savings of 12.65 per cent on the day shift, 6.77 per cent on the evening shift, and 21.51 per cent on the night shift. The evening shift was found to be appropriately staffed; the day shift may have been able to accommodate a limited expansion of services using current staff to reduce unproductive time; and the night shift needed to be examined to determine if reduction of staff was appropriate. Such changes should be phased in on an experimental basis and then evaluated as to their contribution to total productive time.

741. HAMMER, N. Arzneimittelverbrauch und Spitalskosten. **[Drug consumption and hospital costs.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1978, June, vol. 19, no. 6, pp. 307-310, 313-319.

It has been calculated that only five to seven per cent of the running costs in Austrian hospitals can be ascribed to drug supply. Although even large savings on drugs would have only a minor impact on hospital economy it is nonetheless desirable that any possible savings on drugs should be carefully considered. It must first of all be borne in mind that the primary concern is the welfare of the patient who has a right to the best possible treatment for his illness. Hospital drug lists, which tend to limit the doctor's choice, can to some extent reduce costs but this can be at the expense of doctors' freedom of choice. Such drug lists rather give the impression that purely economic factors are given priority. Clinical trials are essential and have certain advantages for the hospital—drugs, and often equipment, are supplied free and doctors benefit from international contacts. It has often been stated that sales talk by drug firm representatives leads to excessive expenditure but there is no confirmation of this.

742. AMERICAN SOCIETY OF HOSPITAL PHARMACISTS. **Sourcebook on computers in pharmacy.** Washington, D.C. American Society of Hospital Pharmacists, 1978, viii, 280pp.

The use of computers in hospital pharmacy in the United States has been characterized by two shortcomings: implementation of automated 'applications' rather than integrated systems; and the domination of computer-based applications. This book provides the basic information a pharmacist needs to use computer technology in hospital pharmacy practice. It includes an introduction to computer terminology and concepts, and general reviews of hospital pharmacy applications. Features considered include: review of computer applications in hospital pharmacy; basic computer hardware and software; dry coding and classification systems; inventory control and

accounting applications; formulary and drug list applications; drug interaction surveiliance applications; patient profile and unit dose system applications; ambulatory applications; drug utilization review applications; and special applications.

743. MONSON, R. A. and BOND, C. A. **The accuracy of the medical record as an index of outpatient drug therapy.** *Journal of the American Medical Association*, Chicago, 1978, Nov. 10, vol. 240, no. 20, pp. 2182-2184.

The records of 355 patients in out-patient clinics at Madison Veterans Administration Hospital were reviewed and compared with the pharmacy prescription files for the same patients. The records were evaluated for completeness and accuracy with regard to the names, dosage and directions for drugs prescribed by the clinic doctor. Twenty-one per cent of the records omitted the name of one or more prescribed drugs and only 30 per cent correlated exactly with the prescription as to the name of the drug, strength, dosage and directions. The study showed that: (i) the more visits a patient makes the more drugs he is prescribed and the more duplication occurs; (ii) the more drugs a patient receives the less accurate the medical record becomes. These inaccuracies could result in adverse drug reactions. A computer printout of a drug profile for each patient at each visit would be an ideal, if expensive, way of ensuring that the physician is aware of every drug the patient is receiving.

744. KARNER, A. Steigende Arzneimittelkosten im Krankenhaus aus der Sicht eines Primararztes. **[The mounting costs of drugs in hospitals from the point of view of a doctor providing primary care.]** *Österreichische Krankenhaus-Zeitung*, Wien, 1978, June, vol. 19, no. 6, pp. 304-307.

The medical director of an Austrian hospital discusses the various aspects of the supply of drugs to hospitals. While drug promotion by manufacturers should not be accepted uncritically pharmaceutical firms can play a useful role in arranging scientific meetings and in the free supply of drugs in certain circumstances. Hospital drug lists aimed at reducing the range of medicaments and thus helping to reduce costs could have the effect of limiting the doctors' freedom of choice. Medical and ethical factors should have priority over economic factors.

745. SCHWERIN, G. D. and NELSON, A. A. **Development of pharmacy PSRO criteria and standards for South Carolina hospitals.** *Hospital Pharmacy*, Philadelphia, 1978, Oct., vol. 13, no. 10, pp. 535, 541-542, 547, 550, 553-554.

This paper presents the procedure followed by South Carolina Society of Hospital Pharmacists in meeting one of the pharmacist's responsibilities in professional standards review organizations (PSROs)—the establishment of standards of pharmacy practice. These standards are included as an appendix. The PSRO legislation appears to provide a mechanism for organized pharmacy to raise the level of institutional pharmacy services to assure the quality of pharmaceutical care. The success that will be achieved in these areas will be the result of professional associations' interest and activities in developing criteria, standards and assessment mechanisms.

746. LEACH, R. **Presentation of medicines: label design.** *Pharmaceutical Journal*, London, 1979, Feb. 3, vol. 222, no. 6007, pp. 79-82.

The opening of the new Ninewells Hospital and Medical School, Dundee, offered an opportunity to consider the presentation of medicines, with particular reference to the design and layout of the labels. This paper presents the principles adopted and describes, with illustrations, the labels adopted for various types of preparations.

747. DORMAN, M. R. and others. **Do administrators' views show why hospitals do or don't use unit doses?** *Hospitals*, Chicago, 1978, Dec. 1, vol. 52, no. 23, pp. 107-109.

A study was conducted of the opinions of a sample of hospital administrators towards unit dose drug distribution systems. A postal questionnaire was completed and returned by 402 of the 593 hospital administrators to whom it was sent. Of the 402 hospitals, 57 per cent used the unit dose system. The results indicated that hospital administrators showed some expected correlations and some surprising contradictions between their opinions of the unit dose system and their institution's policies on use of the system. Hospital administrators need to be better informed about many of the advantages and disadvantages of the unit dose system; communication with hospital pharmacists strongly influences their opinions.

LABORATORIES

See also Abstract No. 724

748. SCHMIDT, E. W. Rationalisierung im Krankenhauslabor. **[Rationalization in the hospital laboratory.]** *Krankenhaus Umschau*, Kulmbach, 1978, Oct., vol. 47, no. 10, pp. 745-746, 751.

In a hospital laboratory organized on conventional lines costs are divided as follows: 30 per cent on the transport of materials, 30 per cent on analytical procedures and 40 per cent on written work and reporting. This paper discusses the ways in which these three main items can be rationalized by the use, among other things, of automation and electronic data processing. It is pointed out that the basis of any mechanization in the areas of analysis and documentation is a functioning system of manual data collection: all subsequent rationalization procedures must be adopted to this. The converse (i.e. when laboratory organization has to conform to existing equipment) does not give an economic solution: it means increased costs and an unsatisfactory complication of data flow.

749. COLLINS, C. H. **Choosing a biological safety cabinet.** *Gazette of the Institute of Medical Laboratory Sciences*, London, 1978, Dec., vol. 22, no. 12, pp. 489-492.

Recent concern about laboratory-acquired infections and the publication of a code of practice for preventing them has led many laboratories to purchase new safety cabinets. There is a confusing variety of safety cabinets available, but a classification is available. In its simplest form it comprises: (i) open-fronted exhaust protective cabinets through which air is exhausted at a sufficient rate to prevent escape of airborne particles generated within the cabinet; (ii) open-fronted cabinets with a downward linear air flow that is filtered and recirculated; and (iii) totally enclosed cabinets with glove ports. Class i cabinets are used for work with B1 pathogens, e.g. tuberculous

material. Class ii cabinets must not be used for category B1 work but are useful for category C work with tissue cultures that need to be protected from contamination. Class iii cabinets are required for handling category A pathogens and are useful for category B work involving tissue cultures that need to be protected from contamination. The characteristics and use of each class are described.

BLOOD TRANSFUSION DEPARTMENT

750. HOUGH, D. E. **The market for human blood.** Lexington, Mass., Lexington Books, 1978, xiii, 161pp. £10.50

This study examines the effect of legislation passed in Illinois to accomplish the goal of eliminating the risk of hepatitis from blood transfusions. It also investigates whether the benefits of converting from a mixed-commercial-voluntary blood supply to an all-voluntary supply in Illinois outweigh the costs. The study is in seven sections and considers: the blood problem and responses to it; the theoretical justification for intervention in the market for human blood; the legal and economic implications of the Illinois Blood laws; the costs and the benefits of the Illinois blood laws; and conclusions. The Illinois Blood Labeling Act is presented together with a bibliography (pp. 153-158).

REHABILITATION

See Abstract No. 775

DEPARTMENTS FOR SPECIAL THERAPY

See Abstract Nos. 760, 761

INTENSIVE CARE UNITS

See also Abstract No. 767

751. BLOOM, B. S. and JONSSON, E. **Distributing medical care services: coronary care units in the United States and Sweden.** *Scandinavian Journal of Social Medicine*, Stockholm, 1978, vol. 6, no. 3, pp. 97-104.

Planning in the United States is based on an institution's perceived need, whereas in many other countries it is based on population need. This paper examines the effect of this difference by comparing the distribution, use and results of coronary care units in Sweden with those in the United States. Planning by the United States method leads to a more generous provision of services than does population-based planning. In both systems, the planning process appears to be of paramount importance, while fundamental questions of effectiveness, outcome and impact of medical care services are usually ignored. Even population-based planning either cannot or will not deal with the conflict between professional desire for highly developed technology on the one hand and treatment effectiveness on the other. Nevertheless, population-based planning has at least the virtue of providing a less expensive yet more efficient system. Both the abundant United States supply and the restricted supply in Sweden are perceived as adequate, indicating that physicians and the public appear to be able to adjust to the quite different resource provisions of the two planning systems.

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract Nos. 743, 759, 768

752. ERSKINE, Z. G. and others. **An out-patient medication record.** *British Medical Journal*, London, 1978 Dec. 9, vol. ii, pp. 1606-1607.

The introduction of a medication record sheet to out-patient clinics in Aberdeen teaching hospitals is described. The sheet was designed to record all medicines, whatever the source of the prescription, and was used on a trial basis in five different clinics. After four months, the adequacy of the record was assessed by comparing it with case notes and interviewing patients about their current medication. The study showed that the recording was 93 per cent accurate and, while subject to further study, the sheet format has been accepted for general use.

753. OSTERWEIS, M. and BRYANT, E. **Assessing technical performance at diverse ambulatory care sites.** *Journal of Community Health*, New York, 1978, vol. 4, no. 2, pp. 104-119.

The study reported here aimed to develop and test methods for assessing the quality of care that would be broadly applicable to diverse ambulatory care organizations for periodical comparative review. Methodological features included the use of an age-sex stratified random sampling scheme, dependence on medical records as a source of data, a fixed study period year, use of Kessner's tracer methodology, and a fixed tracer matrix at all test sites. This combination of methods proved more efficacious in estimating certain parameters for the total patient population and the process of care for acute conditions than it did in examining the process of care for selected chronic conditions. It was found that the actual process of care at all three sites for three acute conditions often differed from the expected process in terms of both diagnosis and treatment. Several aspects of the study methodology were found to be detrimental to between-site comparisons of chronic disease care. The discussion centres on these and other problems encountered and provides some guidelines as to the utility of alternative methods for assessing the quality of health care.

CASUALTY AND ACCIDENT

754. KARAS, S. **The microcomputer in the emergency department: a clinical information center.** *Journal of the American College of Emergency Physicians*, Lansing, 1978, Sept., vol. 7, no. 9, pp. 334-338.

A microcomputer system has been developed for the emergency department of the Tri-City Hospital, Oceanside, Calif. The system core consists of an IBM-5100 portable computer with 32K of memory, communication interface, and serial I/O capable of BASIC and APL. The system is being used to: ensure better allocation of resources, both staff and materials; assess accurately the nature of the problems presented to the emergency department; aid in diagnosis and laboratory test interpretation; improve the quality of care; serve as an epidemiological tool; and help in the education of emergency care staff.

DAY HOSPITALS

755. EGU-BELL, M. Hospitalisation de jour: étude de prix de revient. **[Day care: analysis of cost.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Nov., vol. 33, no. 398, pp. 87-92.

A method of calculating the cost to a French hospital of providing day care is described in detail, with eight tables. A comparison was made of the cost of day and in-patient care over an eight-day period in Toulouse University Hospital in 1977, and it became clear that, whatever the benefits of day care provision to society as a whole, the hospital is providing this service at a loss.

CHEST

See Abstract Nos. 645, 717

CHILDREN

See Abstract Nos. 638, 717

GERIATRICS AND LONG-STAY

756. SMITH, E. **Evaluating patient care programs.** *Dimensions in Health Service*, Ottawa, 1978, Nov., vol. 55, no. 11, pp. 23-24.

A system of evaluating the long-term and geriatric care programme at Shaughnessy Hospital, Vancouver is described. The process aims to cover those items common to all evaluations of health care systems as well as features unique to long-term care. The scheme is divided into seven steps: (i) the development of consistent patient data; (ii) a definition of the objectives of the programme of care; (iii) measurement of patient outcomes; (iv) evaluation of the programme's achievements in cost-benefit terms; (v) a determination of the frequency of evaluation; (vi) determining the action to be taken as a result of the evaluation's findings; and (vii) the choice of an external director to implement and manage the evaluation scheme.

757. HANSEN, H. Sykehjem/aldershjem i Oppland. **[Nursing homes and old people's homes in Oppland County, Norway.]** *Sykehuset*, Oslo, 1978, vol. 41, no. 8, pp. 538-549.

Most long-stay institutions in Oppland combine old peoples' homes and nursing homes, and their running costs comprise 30 per cent of the entire county health budget of £20 million a year. Such homes aim to provide active rehabilitation treatment and not just act as depots for the aged. On the principle of the patient being cared for at the lowest effective level, nursing homes ought to play an active part in local and county health planning, but this practice is made difficult by the divided responsibility for administration and accounting which is operating in Norway. The Government has

laid down a norm of seven institution beds for every 100 people over 70, plus one day place per 200. There are currently 1,112 beds, or 5.89 per cent for the over 70s, and by 1982 there will be 1,337, or 6.52 per cent, a deficiency of about 100 beds. Twenty-seven of the homes are municipal, two are private (voluntary); there is no county nursing home. Ninety-seven of the 150 established nursing posts are filled. A series of detailed proposals is presented for amendments to the Norwegian financing, refund and planning arrangements. The county has had satisfactory experience in the use of a specialist consultant firm in planning nursing home extensions—n.kr. 52 million has been invested in such work since 1970. The old type of nursing home is giving way to small service flats in groups of 30 to 40 under the charge of a qualified matron.

758. LEVEY, S. and LOOMBA, N. P. **Long-term care administration: a managerial perspective.** New York, S.P. Books, 1977, 2 vols. £25.30

The second volume of this book (see Hospital Abstracts vol. 18, no. 1405) is devoted to the important issues of federal and state government involvement in the licensing, inspection and reimbursement of long-term institutions. It consists of five chapters: (i) government and long-term care; (ii) planning, (iii) evaluation and control; (iv) the effective manager; and (v) future developments, educational planning and an analysis of deficiencies. This volume although sequential to volume one has been structured as a complete unit with its own plan of organization and indexes.

NEUROLOGY AND NEUROSURGERY

759. KUNÉ, J. B. Kosteneffektiviteitsanalyse in de epilepsiebestrijding. **[Cost-effective analysis of the health care of epileptics.]** *Tijdschrift voor Sociale Geneeskunde*, Amstelveen, 1978, Nov. 22, vol. 56, no. 23, pp. 777-788.

After discussing studies of cost analysis, including the problems evaluating benefits, time factors and criteria for decisions, the paper describes a study of a group of 102 epileptic patients of all ages attending the polyclinic of a Leeuwarden hospital between 1967 and 1975. The aim was to establish the difference between the condition of the patients when given treatment and their condition if left untreated, and to relate this 'health gain' to the costs involved. The group was divided into six categories according to the degree of the disease. Data was collected by interviewing and questions were asked on the number of attacks each year and on marital and social life. The results were examined by a panel of 14 experts including social workers, nurses and psychologists. A 'guestimate' of the patient's condition if left untreated was worked out by a panel of eight medical and eight social experts. The calculated health gain was then assessed biologically, psychologically and socially, and gains, such as a healthier patient, less working hours lost, less insurance claims, etc., were weighed against the costs of the treatment. It was found that therapeutic gains were greater in severe cases and social gains greater in milder cases. Details are given of methods used and calculations. The paper includes seven tables, four graphs and a list of references.

CARDIOLOGY

See Abstract No. 751

UROLOGY

760. **New dialysis unit in older building meets codes, expands department.** *Hospitals*, Chicago, 1978, Sept. 16, vol. 52, no. 18, pp. 39-40.

At Lenox Hill, New York, a new dialysis unit has been constructed on part of the 11th floor of an existing 12-storey building. The unit accommodates separate areas for ambulatory chronic care patients who are treated several times per week, ambulatory patients who are being trained in home dialysis, and in-patients who must be treated in beds rather than in lounge chairs. Facilities include: offices; staff lounge; supply, equipment and storage rooms; medication station; waiting area for patients and visitors; examination room; patients' locker room; nurses' station; and eight patient treatment stations. The unit has an L-shaped configuration with windows on three sides, so that it has sunlight throughout the day. The interior decoration has been designed to enhance this feature in order to provide a cheerful environment. The unit was built by the hospital's engineering and maintenance staff. A plan and two coloured photographs of the unit are included.

761. MICHIELSEN, P. Beschouwingen bij de programmatie van hemodialyse. **[Reflecting on the planning of end-stage renal dialysis.]** *Acta Hospitalia*, Leuven, 1978, vol. 18, no. 3, pp. 271-284.

Increasing costs of renal dialysis in Belgium are leading to Government intervention and planning. The paper compares the Belgian record with that of European countries with planning programmes and discusses: the number of patients receiving treatment (Belgium has 128.5 patients per million inhabitants); the methods of treatment, i.e. home dialysis, hospital dialysis and kidney transplants; the costs, which in Belgium are expected to treble and at present are born by an efficient repayment system; the economy of transplants against dialysis; survival figures taking into account the type and efficiency of treatment and the selection and age of patients; and rehabilitation. Belgium appears to have been more successful than other countries with Government planning programmes. In order to improve both medical results and economy, the paper recommends: the concentration of larger dialysis units in hospitals; limited care units outside hospitals; encouragement of home dialysis and transplants; and improvements to the repayment system. The disadvantages of state planning are: the loss of the choice of doctor by patients; decisions for treatment are taken by other than medical authorities; and there is a loss of control over inefficient centres. There is a fear that central planning may lead to conduct contrary to medical ethics, and a loss of quality without achieving economy. The paper includes many figures, references, and tables of survival rates and treatment methods in seven European countries.

SURGERY

See also Abstract Nos. 630, 632-633, 737, 739

762. ROUX, M. and GERMAIN, M. Le Centre de chirurgie expérimentale de l'Hôpital de Vaugirard (1957-1978). Bilan d'activité. Réflexion sur l'organisation de la chirurgie expérimentale en France. **[The centre of experimental surgery of the Vaugirard hospital. Review of activity. Reflections on the organization of experimental surgery in France.]** *Bulletin de l'Académie Nationale de Médecine*, Paris, 1978, vol. 162, no. 8, pp. 756-762.

On the basis of his 20 years' experience as founder and chief of the experimental surgery centre at the Vaugirard Hospital in Paris, which he operated on a shoestring with a staff of only two technicians, the author recommends that every university hospital should have one well-equipped experimental centre—this would avoid dispersal of equipment, funds, and staff. In addition, he believes that the best method of financing such centres is a system of contracts for specific research projects.

763. HOWELLS, J. G., editor. **Modern perspectives in the psychiatric aspects of surgery.** London, Macmillan, 1978, x, 756pp. £15.00

This book is one of the first major treatments of the psychiatric and emotional aspects of surgery. There are three sections: general; surgery of body systems; and management. Aspects considered under these headings include: ethical problems; the psychic significance of parts of the body; the patient's motivations in delaying surgery and pain; the psychiatric aspects of surgery on all the body systems; anaesthesia; surgical delirium; accident neurosis; and dying and death. References are given at the end of each chapter.

MATERNITY

764. MCCANN, J. **Hospitals in America meet home birthing halfway.** *Medical News*, London, 1979, Jan. 25, vol. 11, no. 4, p. 7.

There is an increasing demand in the United States for home confinements, because of what women see as rigid hospital rules and inhumane staff attitudes. One result of this demand and its hazards has been the setting up of 'alternative' birthing centres with a more homelike atmosphere. One such centre has been established at Mount Zion Hospital and Medical Center, San Francisco. Brief details are given of the centre and of a study of its first 500 patients. The cost to a patient for a 48-hour stay is one-third of that for the normal three-day maternity stay.

765. PECKHAM, B. M. **Resident training goals in obstetrics and gynecology for the 1980's.** *American Journal of Obstetrics and Gynecology*, St. Louis, 1978, Dec. 1, vol. 132, no. 7, pp. 709-716.

Residency training goals and manpower needs in the United States in the 1980s and beyond should bear a consistent relationship. Projections for supply and demand for obstetrics and gynaecology and for those medical specialties with overlapping responsibilities, though fraught with uncertainties, suggest that currently approved

training programmes in obstetrics and gynaecology will meet clinical manpower needs for 1990. The role of the obstetrician-gynaecologist in the primary care of women will be increasingly shared with others and the trend in urban areas towards task delegation seems likely to increase. The popular and pervasive emphasis on primary care carries with it the serious risk that the present shortage of qualified investigators may not be corrected in the next decade. This could seriously hamper efforts to recruit new faculty members and maintain quality in training programmes.

766. SHIELDS, D. **Nursing care in labour and patient satisfaction: a descriptive study.** *Journal of Advanced Nursing*, Oxford, 1978, Nov., vol. 3, no. 6, pp. 535-550.

In an examination of the type of nursing care patients saw themselves as receiving and of how satisfying it was to them, an interview questionnaire was completed for 80 post-partum patients. Care was categorized as supportive, physical, medicative, or as combinations of these three. Calculations on these categories and satisfaction scores indicated a significant relationship between the type of care a patient received and her satisfaction scores. Patients found combined care very satisfying, but supportive care was the decisive factor in the way patients viewed their nursing care. The most frequently mentioned element in supportive care was the ability of the nurse to be a sustaining presence. The ability to recognize and respond to the patient's need or non-need for her presence was a crucial factor in patient satisfaction and in the way in which a nurse allocated her time. The relationships between numbers of nurses caring for a patient, parity, length of labour, presence of visitors, worries about the baby and satisfaction scores were all non-significant. However, the number of nurses caring for a patient was a contributing factor to the delivery of supportive care nursing. The administration of syntocinon to patients in this sample decreased patient satisfaction with nursing care. Implications and possible reasons for these results are discussed.

767. BOER, H. R. **Do we support parents of high-risk infants: a survey.** *American Journal of Diseases of Childhood*, Chicago, 1978, Oct., vol. 132, no. 10, pp. 980-983.

The lengthy separation of a mother and an infant in a neonatal unit often causes emotional and psychological strain on the parents. A study by questionnaire was undertaken to find out what was done to support those parents, who are often at risk for child abuse. More than half the respondents said that full-time social workers were available in the nurseries, but some made no home visits. All nurseries encouraged frequent visiting or, if this was impossible, contacted parents on average about every two days. The author considers that: (i) more screening of parents of high-risk infants should be carried out; (ii) the social worker or community nurse should make more visits to the home both before and after the infant is discharged; and (iii) the hospital should encourage regular meetings between parents with infants in intensive care. The literature concerning the link between high-risk infants and subsequent child abuse is briefly reviewed.

DENTISTRY

768. PARBROOK, G. D. and DAVIS, P. D. **Anaesthetic pollution in the dental out-patient surgery.** *Anaesthesia*, Oxford, 1979, Jan., vol. 34, no. 1, pp. 47-52.

Five factors which may influence the level of pollution in dental out-patient surgery are considered: the scavenging system; the anaesthetic gas flow; the pattern of room

ventilation; mechanical ventilation; and the size of the room in which anaesthesia is conducted. Despite leakage from round the mask and from the mouth, scavenging can remove the majority of expired anaesthetic. The effectiveness of scavenging can usefully be monitored with a Wright respirometer. Spillage of anaesthetic vapour at induction and at the end of anaesthesia must be avoided. In addition to scavenging, pollution levels are minimized if a Boyle's type machine is used and excessive fresh gas flow avoided. Room ventilation, for example from extractor fans in windows, is vital in reducing pollution levels in surgery. Room size and non-uniformity of ventilation must also be considered.

PSYCHIATRY

769. DAVIDSON, C. and others. **Psychiatric provision drawing on large institutions: organising and managing to develop better services. I: developing innovation from within. II: key issues and useful examples.** London, King Edward's Hospital Fund for London, 1978, 32pp. £0.75

These working notes tentatively explore how people in the health and welfare services are tackling the problems of developing comprehensive mental health services, in situations where these services are currently based on large institutions serving two or more health districts. Four main sets of issues are considered: (i) organizing and managing services drawing on the large hospitals; (ii) relating services to the community; (iii) the development of good working relationships between the different professionals involved in the psychiatric services; and (iv) the role of higher management. For each set of issues background notes are provided to introduce the major topics, and key questions are given for staff to ask and answer about their own situation. Responses to some of these questions are illustrated by practical examples of work already being carried out by staff in various parts of the country.

770. LAEMMEL, K. Die psychiatrische Klinik im Allgemeinspital. **[The psychiatry department in a general hospital.]** *Veska*, Zurich, 1978, Oct., vol. 42, no. 10, pp. 529-531.

The first psychiatry department in a general hospital in Switzerland came into use at the Lucerne Cantonal Hospital in the autumn of 1977. It has 70 beds (mostly in three-bedded patient's rooms) and the staff includes seven doctors, 20 nurses, four student nurses and two ergotherapists. The department has four main tasks: (i) in-patient treatment of certain mentally disturbed patients; (ii) diagnosis of mental illness; (iii) ensuring proper after-care for discharged patients; and (iv) training and further education of doctors, nurses and social workers in the field of psychiatry and provision of a forum for discussion among those working in the field.

771. DØSSLAND, H. Barne- og ungdomspsykiatrien i Oppland. **[Psychiatric services for children and young people in Oppland County, Norway.]** *Sykehuset*, Oslo, 1978, vol. 41, no. 8, pp. 503-506.

The children and young people's psychiatric out-patients clinic planned in 1962 was opened in 1973 in association with Gjövik County Hospital. The buildings were

donated by the local Red Cross. Twenty to 30 per cent of all children require psychiatric help at some stage in their development—seven to 19 per cent about the age of 16. The clinic commenced with six established clinical posts, but a further nine were required. Four of these were granted in 1977. The staff now comprises 10 clinicians (two child psychiatrists, two psychologists, two socionomists, a paedagogical specialist and a clinical infants paedagogue) and two administrators. The hospital is over 80 miles from the furthest borders of the county, so provision has been made for patients and family to stay overnight at Solaas Nursing Hotel. The clinic works closely with the seven County School Psychologists' offices. Under its terms of foundation the clinic is expected to conduct preventative work, but since there are insufficient resources this task is limited to occasional talks and meetings at schools and kindergartens. The Red Cross has offered to provide a family ward by 1983, but the county lacks qualified specialists to staff it.

772. DIETRICH, G. **Teaching psychiatric nursing in the classroom.** *Journal of Advanced Nursing*, Oxford, 1978, Nov., vol. 3, no. 6, pp. 525-534.

The practice in teaching psychiatric nursing to post-registration student nurses at the Bethlem Royal and the Maudsley Hospital School of Nursing is described, showing the exclusive use of experiential teaching methods. Five distinct courses are conducted at present in this topic: (i) discussions based on written work; (ii) discussions centering on set topics; (iii) group dynamics, discussions and projects; (iv) psycho-drama exercises; and (v) supervision classes. The last named are conducted in a manner not previously described. The dependence of effective classroom teaching on the students' ward experience is demonstrated.

773. DOWNING, A. R. and BROCKINGTON, I. F. **Nurse-rating of psychotic behaviour.** *Journal of Advanced Nursing*, Oxford, 1978, Nov., vol. 3, no. 6, pp. 551-562.

Six schedules for the rating of disturbed and psychotic behaviour (reproduced as tables) were evaluated for their suitability for a British psychiatric unit and current nursing practice. The schedules were compared for their reliability, their concordance with psychiatric ratings and their acceptability to the nursing staff. It was found that psychiatric and nursing observations corresponded over a wide area of psychopathology: anxiety; tension; depression; hostility; preoccupation with hypochondriacal, grandiose and self-depreciatory ideas; hallucinations; thought disorders; mannerisms; retardation; emotional withdrawal; hypomanic activity; and unco-operative behaviour. These were adequately covered by two of the scales: the Brief Psychiatric Rating Scale and the Psychotic In-patient Profile, which together took 7½ minutes to complete. Another of the schedules studied, the Nurse Rating Scale (Hargreaves), also had relatively high reliability and a broad effective range.

774. JENSEN, B. Arbejdet som psykiatrisk distriktssygeplejerske: tal underbygger tro på värdi af psykiatrisk distriktssygepleje. **[Working as a hospital psychiatric district nurse: statistics support belief in the value of hospital psychiatric district nursing.]** *Sygeplejersken*, København, 1979, Jan. 10, no. 2, pp. 4-7, 23.

The author has been a district psychiatric nurse for 10 years and is now one of the six associated with Nordvang County Hospital. Since the nurse's function is to act as

co-ordinator between the patient and his environment on the one hand and the hospital on the other, she must work closely with 'her' wards. The aim of the post is to look after psychiatric out-patients and train them to solve their own problems at home and at work, avoiding the need for re-admission. The tasks comprise: (i) planning and carrying out visits and treatment and (ii) participating in conferences, teaching, and keeping records and statistics. The main fields of responsibility are: (i) continual visits; (ii) acute visits; (iii) discussions with psychogeriatric patients; and (iv) co-operation both within, and outside the hospital. The two nurses associated with R Ward have produced statistics for the patients for whom they are responsible. In October 1978, 82 patients (58 women, 24 men) were in the care of the district psychiatric nurse. The average duration of out-patient contact is 4¾ years. Thirty-four of the 82 patients had been re-admitted on consultation with the nurse. Duration of re-admission was less than a month for 15 patients, one to two months for 10, and over two months for nine—much shorter periods than before contact with the nurse. Half the diagnoses are for schizophrenia and the remainder represent all other diagnostic categories. Contact with the nurse ensures that re-admission to psychiatric hospital occurs early enough for treatment to be short-lasting and effective.

775. KJOS, K. Det psykiske helsevern (HVPU) i Oppland. **[The psychiatric occupational rehabilitation service (HVPU) in Oppland County, Norway.]** *Sykehuset*, Oslo, 1978, vol. 41, no. 8, pp. 506-515.

Oppland became an independent hospital region in 1977, but there are no plans for building a central institution for the mentally retarded. The county has over half the 322 beds in Aakershagen Institution and a total of 235 places in nine small homes about the county. A further 40 retarded children are fostered out. The county health plan involves the construction of five district mental in- and out-patient homes to cover the need for differentiated rehabilitation and treatment. The service is the responsibility of a regional team consisting of a consultant, a social affairs adviser and a warden. It has not proved possible to recruit the necessary psychologist, and there were no funds for the paedagogic specialist and the secretarial help applied for. Clinical psychiatry is responsible for special areas such as alcoholics, the mentally retarded, children's and youth problems, etc., but lacks resources to provide a preventative service for the family as a whole. The psychiatric service should draw on the resources of keen and highly trained newly qualified doctors.

776. TOWELL, D. and HARRIES, C., editors. **Innovation in patient care: an action research study of change in a psychiatric hospital.** London, Croom Helm, 1979, 227pp. £8.95

This book describes, analyzes and evaluates the first five years of an action research project to develop new approaches towards encouraging informed change about psychiatric care. The Fulbourn Hospital (Cambridge) Innovation Project was developed between 1972 and 1977 and attempted to involve staff members in investigations of problems emerging in their own work, as a basis for staff groups themselves making informed innovations in hospital organization and practice. The book is organized in eight chapters and considers all aspects of the development of the Project and the experiences gained.

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